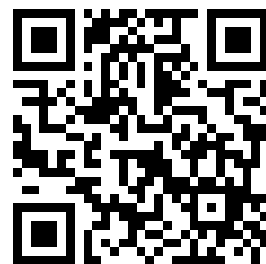

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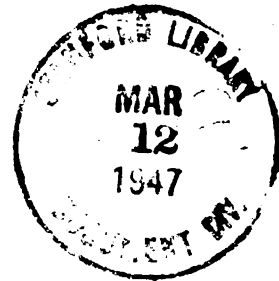
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OFFICE OF STRATEGIC SERVICES
Research and Analysis Branch

R & A No. 2327



NATIVE CRAFT IN SOUTHEAST ASIA WATERS

Part I

(JAVA AND ADJACENT ISLANDS)

Description

A study showing the types and distribution
of native craft found in the waters
surrounding Java and its adjacent islands.

15 September 1944

Copy No. _____



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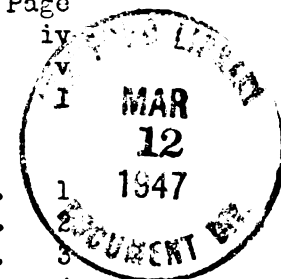
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ADDITIONAL PHOTOGRAPHS (Figures 1-24)

SUPPLEMENT TO PART I (Figures 1-9)

N O T E

The following is an assemblage of native craft found in the waters surrounding Java and its adjacent islands. The assemblage is fairly complete but space has been left after each description for supplementary information or pictures. Illustrations and plans have been included whenever available.

A map for general location of the craft described is included. The numbers on the map correspond with the numbers to the left of the craft name in the text.

Also included in this volume is a pictorial supplement. Although identification was incomplete in each case, the photographs may prove useful. If identified satisfactorily they should be added to the text.

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NOTE ON THE NAMES OF NATIVE CRAFT IN JAVA WATERS

Spelling. The transcription of Malay names for various boats is given here in the English Romanized version. Since the reader is likely to encounter the same names in other sources given in the Dutch Romanized transcription it will be helpful for him to remember the following:

u	in English transcription is	oo	in the Dutch transcription
y		j	
ch		tj	
j		dj	

Thus: jukung - djoekoong
prahu - prahoo, perahoo
mayang - majang
jaring - djaring

The pronunciation, whether given in the English or in the Dutch transcription, does not vary.

Thus: jukung and djoekoong are like joo-koong
prahu and prahoo are like prah-hoo, etc.

Meaning of some of the common terms.

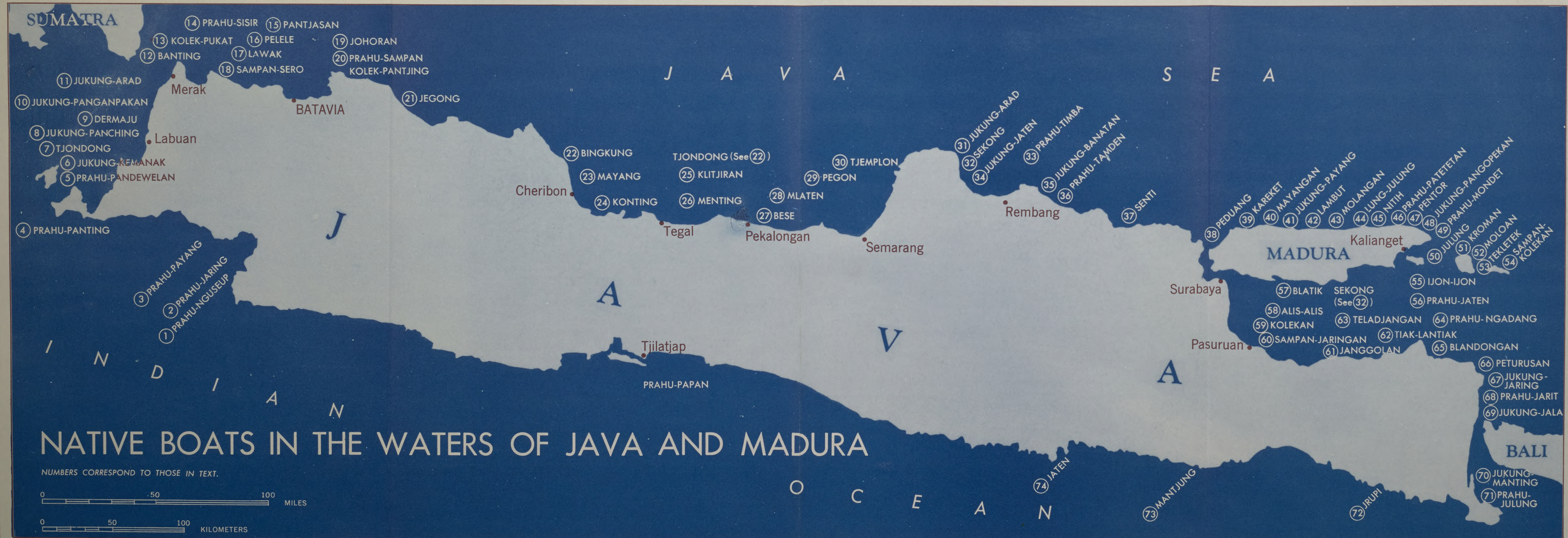
Prahu means boat in general, also a small ship (native)

Mayang means fishing and therefore prahu mayang is a general designation of a fishing boat, also known as prahu payang or pomayang or mayang for short, also mayangan.

Other Malay words used for fishing are: memukat (memoeekat), pukat meaning net, drift net; panching (manching), meaning fishing with hook and line; jaring is a barrier-net a jukung jaring is a fishing boat operating barrier nets; jala is a casting net and therefore jukung jala is a fishing boat equipped with casting nets.

In names for craft proper, kolok, sampan, jukung are the commonest Malay names for small boats and dug-outs, while prahu for larger native craft. The names usually indicate their function and special equipment as in case of jukung jaring.

Some of the names given on this map are by necessity not only Malay but also Javanese, Madurese, etc.
 Nos. 4 and 70 should read prahu panching and jukung manching respectively.



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25 SEPTEMBER 1944

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J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft: (1) "Prahu Nguseup."

Type and Use:

Double outrigger dugout canoe of same type as the
"Prahu Jaring" employed in the hook and line fisheries
of Wynkeops Bay.

Dimensions (average) and capacity:

Length 30 feet Breadth 2 feet Crew 2

Notes:

See Figure 2 in Supplement.

11. 11. 11.

12. 12. 12.

13. 13. 13.

14. 14. 14.

15. 15. 15.

16. 16. 16.

17. 17. 17.

18. 18. 18.

J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft: (2) "Prahu Jaring."

Type and Use:

Double outrigger dugout canoe employed in the fisheries of Wynkoops Bay with a net and manned by a crew of 4.

Notes:

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J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft:

(3) "Prahu Payang."

Type and Use:

A large dugout canoe with double outriggers plank washstrake; high and curved stem and stern pieces.

The outrigger float is attached to the boom by a small strut. They work with a "Payang" not in "ynkoops Bay.

Rig:

They are rigged with one long mast and quadrilateral sail with yard and boom.

Dimensions (typical) and capacity:

Length 36 feet Breadth 4 feet Dept 2,4 feet
Crew of 8.

Notes:

The approximate length of these craft ranges from 30 to 40 feet.

See Figure 1 in Supplement.

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J A V A (West Coast)

Bantam Residency

Local name of Craft: (4) "Prahu Panting."
"Prahu Manting."

Type and Use:

A type of dugout canoe employed in the hook and
line fisheries in Southern Bantam.

Dimensions and capacity:

Length 10 to 24 feet Breadth 1.3 to 2.4 feet

Crew 2 or 3.

Notes:

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J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft: (5) "Prahu Pandewelan."
"Prahu Pembakulan."

Type and Use:

Small dugout canoe with double outriggers employed
in the strand fisheries with lines and small nets
and also as buy-boats or carriers for the larger
craft at sea.

Notes:

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J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft: (6) "Jukung Kemanak."
"Jukung Sileman."

Type and Use:

Name given in Western Java to small dugout canoes without outriggers or washstrake, used as tenders or fish carriers by the larger fishing craft from the Bantam Residency.

Notes:

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General Description

Local Name of Craft:

"Jukung."

"Dyukun."

"Jungkung."

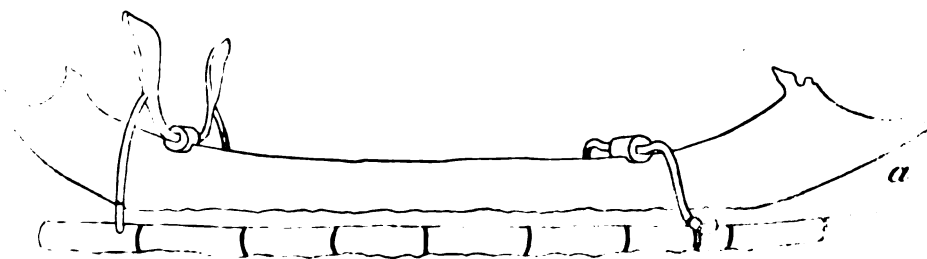
Type and Use:

A generic term used to denote various types of native craft of the Malay Archipelago in which the hull consists either of a simple dugout or of a dugout base with sides raised by planks. The craft which do not have raised sides are generally used for transportation or fishing in sheltered waters or, in some cases, as tenders to the larger sea going fishing boats when setting or hauling in their nets. When working at sea the smaller "Jukung" are provided with single or double outriggers. The larger types of "Jukung" are employed in the offshore fisheries or also for the conveyance of goods along the coast. The word "Jukung" is usually followed by a descriptive term which indicates a particular form of hull or the usage to which the boat is put. When used alone, as for instance on the East and South Coasts of Java, the word "Jukung" denotes the smallest type of one-man or two-man dugout.

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"Jukung" from Cheribon - after Van Kampen.



"Jukung" from Madura Island - after Van Kampen.

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J A V A (West Coast)

Bantam Residency

Local Name of Craft: (7) "Tjondong." (See 22)

Name given in the Bantam Residency to the "Bin'kung"
from Cheribon.

Notes:

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J A V A (West Coast)

Bantam Residency

Local Name of Craft:

(8) "Jukung Panching."

Type and Use:

A small dugout canoe with single outrigger or
without employed in the hook and line fisheries of
West Bantam. Also called "Prahu Panching".
Crew of 3.

Notes:

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J A V A (West and South Coasts)

Bantam Residency

Local Name of Craft: (9) "Dermaju."

Type and Use:

A plank-built fishing canoe with curved stem and sternpost. The smaller units of this type are called "Dermajoan".

Notes:

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J A V A (West Coast)

Bantam Residency

Local Name of Craft: (10) "Jukung Pangampakan."

Type and Use:

A dugout canoe, high plank washstrakes, sharp ends
with long overhang employed in the coastal fisheries
of the Sunda Strait.

Notes:

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J A V A (West Coast)

Bantam Residency

Local Name of Craft: (11) "Jukung-Arad." (See 31)

Type and Use:

Dugout canoe with high up-curving stem and stern and plank washstrake on each side. It has no outriggers and is propelled by paddles only. It is used in the fisheries of West Bantam and works with drag net called "Payang-Arad". According to some authorities "Jukung-Arad" refers also to a plank-built canoe from Rombang Residency.

Notes:

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J A V A (North West Coast)

Bantam Residency

Local Name of Craft: (12) "Banting."

Type and Use:

Open trading boat from Northern Java.

Construction and other Features:

The hull is short and broad with inward curving stem and pointed stern. The sides are raised by washstrakes which extend outboard over the stern forming a base for a palm roofed shelters. It is steered with two quarter rudders.

Rig:

Two masts with boomed quadrilateral sails.

Dimensions and capacity:

Length 90 feet Breadth 27 feet Depth 7 feet

Capacity 28 tons

References:

Encyclopaedie van Nederlandsch Indie.- Loiden, 1927.

Paris, E. F.- Essai sur la construction Navale des

peuples extra-Europeens.- Paris, 1896.

Notes:

The term "Banting" refers also to a two mast decked sailing coaster originating from Achin (Sumatra) but now believed extinct.

J A V A (West Coast)

Bantam Residency

Local Name of Craft: (13) "Kolok-Pukat."

Type and Use:

a plank built open boat employed in the gill-net fisheries of the Sunda Strait and North Coast of Bantam Residency.

Constructional and other Features:

The hull is double ended and similar in construction to that of the "Mayang" type except for the stem and stern post which are crescent-shaped and do not have the blade-shaped appendix. Quarter rudder.

Rig:

One mast and quadrilateral sail with yard and boom or triangular spritsail set with apex down.

Dimensions:

Length 25.6 feet Breadth 4.9 feet Depth 26 inches

References:

Van Kampon, P. N.- Zeevijsscherij op Java en Madura.-

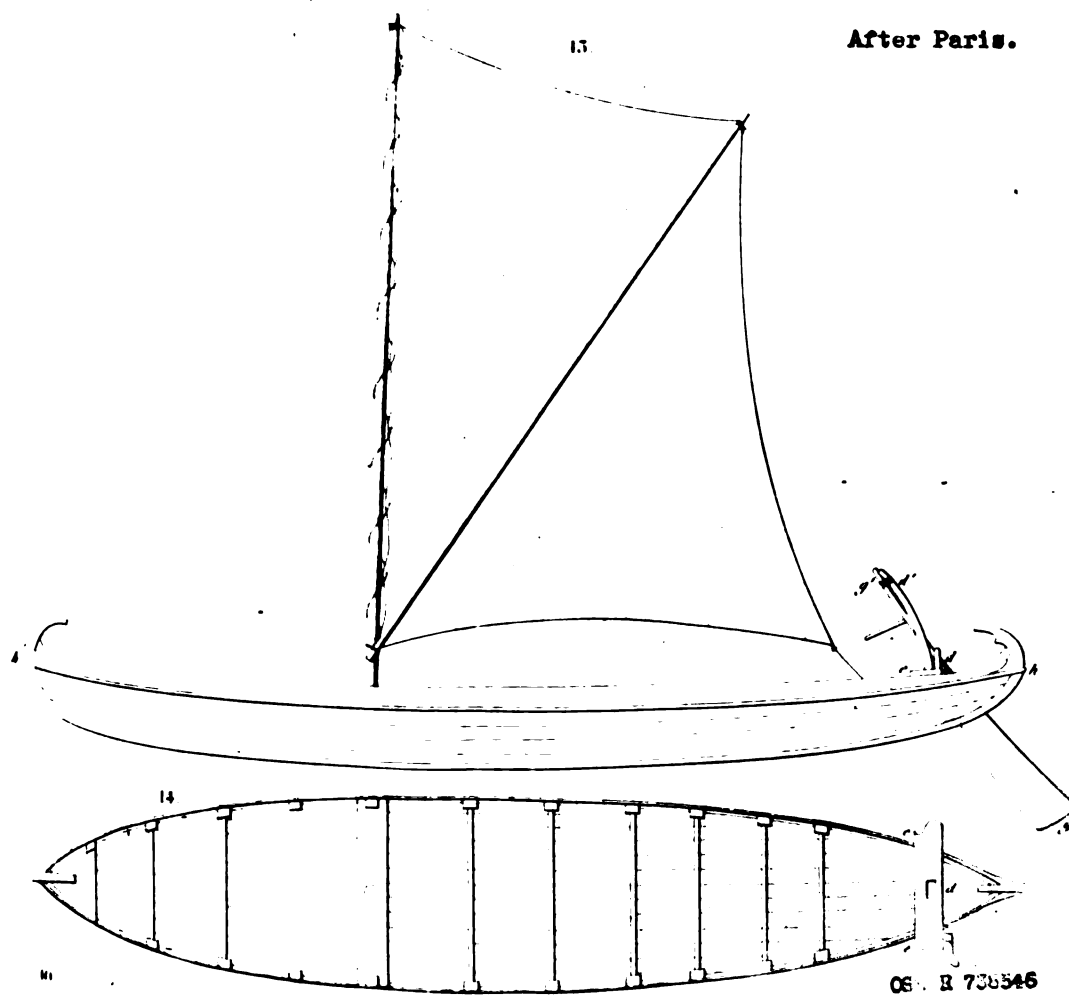
Batavia, 1909

Paris, E. F.- Essai sur la construction Navale des peuples extra-Europeens.- Paris, 1896.

Notes:



After Van Kampen. JAVA (West Coast) Bantam Residency. "Kolek Pukat".



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J A V A (North West Coast)

Batavia Residency

Local Name of Craft: (14) "Prah Sisir."

Type and Use:

A plank built fishing canoe employed in connection with the "Sampan Sero" to assist in getting the catch out of the "Sero" trap with a dip net.

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft: (15) "Pantjasan."

Type and Use:

Plank-built fishing canoe in which the plank ends
at stem and stern abutt against a cross plank.

No mast.

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft: (16) "Pelele."

Type and Use:

Small double outrigger dugout canoe without wash-
strakes at sides used for fishing in sheltered
waters in the Bay of Batavia and estuaries. It
has no rig.

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft:

(17) "Lawak."

"Lawakan."

"Lolawak."

Type and Use:

A dugout canoe without outriggers employed in the fisheries on the North West Coast of Java.

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft:

(18) "Sampan Sero."

Type and Use:

A plank-built open boat of Japanese origin used for working a type of pound net called "Sero" in the bays of Batavia and Bantam.

Constructional and other Features:

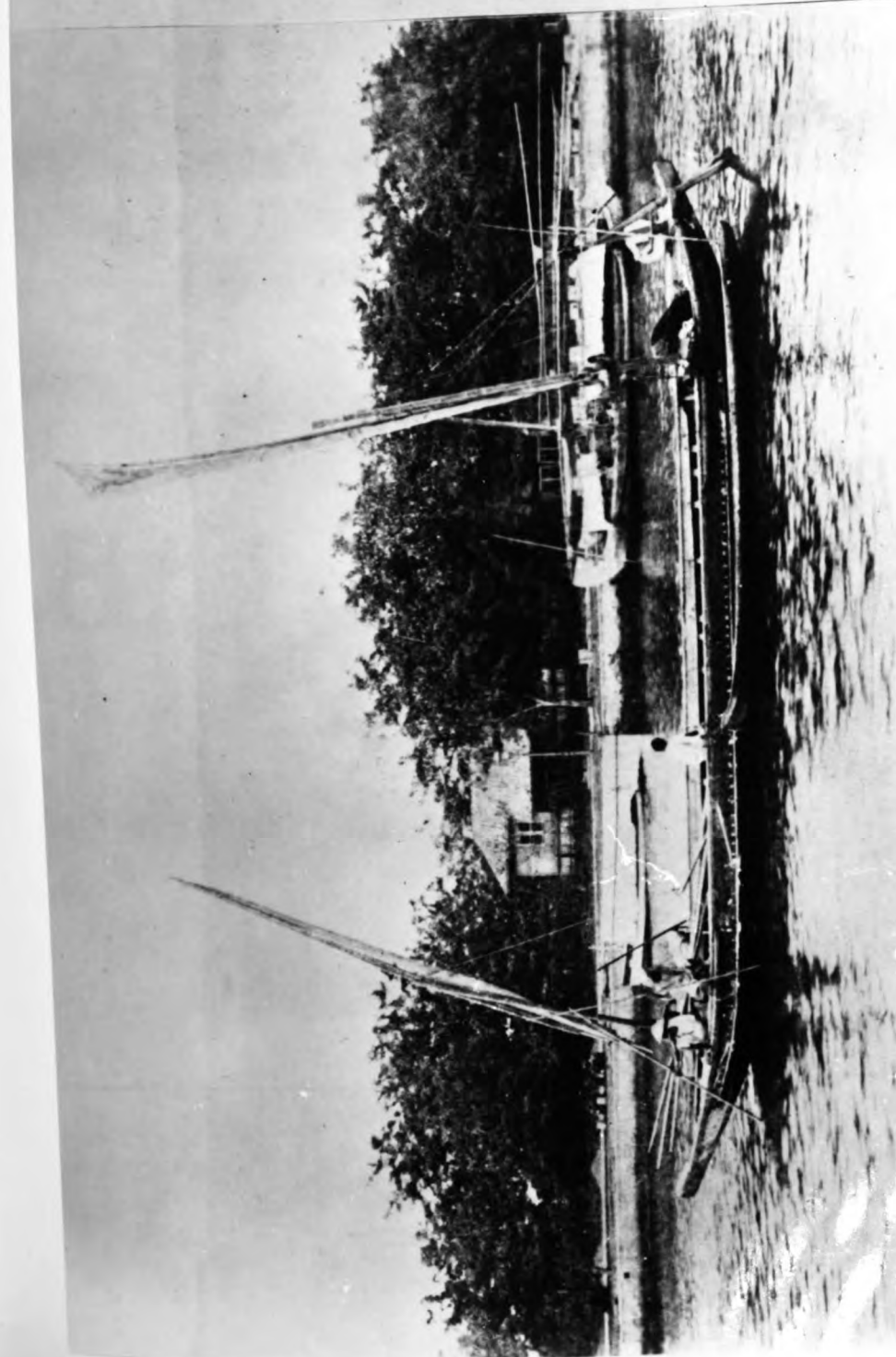
The hull is built with flat bottom, long overhangs at bow and stern, broad strakes of planking.

Rig:

The rig consists of two masts stepped one at each end of the boat to leave a free space amidships when transporting the catch from the fishing grounds to the shore. Each mast carries a quadrilateral sail with yard and boom.

Notes:

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JAVA (North West Coast) Batavia Residency
"Sampan Ser" - after Van Kampen

OSS R 738547

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft:

(19) "Johoran."

"Trondolan."

Type and Use:

A plank-built fishing canoe with straight raking stem and stern from the district of Krawang.

Rig:

One short mast and triangular sail.

Notes:

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JAVA (North West Coast) • Batavia Residency
"Johoran" and "Jukung" after Van Kampen

OSS R 738548

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft:

(20) "Prahu Sampan."

Type and Use:

A barge from Batavia with one collapsible mast.

The hold is covered by a roof-like superstructure.

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft:

(21) "Jegong."

"Jukung Jegong."

Type and Use:

a plank-built canoe employed in various fisheries of the Krawang district. When working with a gill net it is called "Jukung Jegong Jaring"; when working with a drag net "Jukung Jegong Jarad"; when working with a pound net "Jukung Jegong Waring". In the Eastern section of the Krawang district the different types of "Jegong" are variously named according to the construction and shape of bow and stern. Those with convex curved stem and stern are called "Jegong Kapala Jengkol"; while those which have straight raked ends with high point are called "Jegong Kapala Jabing" or "Jegong Rantjung".

(Van Kampon)

Notes:

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J A V A (North West Coast)

Batavia Residency

Local Name of Craft: "Prahu Ponganak." (not on map)

Type and Use:

Small dugout canoe with outriggers employed for
the setting and working of a fyke net called "Soro"
on the estuaries of Batavia Residency.

Notes:

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J A V A (North West Coast)

Residencies of Cheribon and Semarang

Local Name of Craft: (22) "Bingkung."

"Tjondong."

Type and Use:

Open plank-built fishing craft from Western Java of approximately same tonnage as the "Mayang". It is easily distinguished from the latter by the upper stem and stern which have not the blade shaped pieces seen on the "Mayang" type.

Rig:

It is rigged with one mast and triangular sail with boom.

Dimensions:

Length 39 feet Breadth 9.8 feet

Notes:

The "Bingkung-Soto" is a smaller craft of the same type employed in the line and net fisheries of the Cheribon Residency.

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JAVA (North West Coast) Residency of Cheribon.
"Bingkung" - after Van Kampen. O.S.R 738549

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J A V A (North Coast)

Oheribon Residency

Local Name of Craft: (24) "Konting."

Type and Use:

Term used to denote the plank-built "Mayang"
boat employed in the seine net fisheries of
this district.

Notes:

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J A V A (North Coast)

Local Name of Craft: (23) "Mayang."

Type and Use:

A sea-going open sail and row boat from the North Coast of Java employed in the fisheries of Bantam, Cheribon, Rembang, Pekalongan, Semarang, Surabaya, Pasuruan, Besuki Residencies and also Madura Island with a seine net called "Payang". It is the largest type of native fishing craft in Javanese waters.

Constructional and other Features:

The double ended hull is keel-built with carvel planking. It has a flat bottom, round bilges, rockered keel and sheered ends. It is exclusively made of "Jati" wood. One of the most noticeable features is the design of the inward curving blade-shaped extensions of the upper stem and stern post which varies according to the locality where the hull has been built and thereby provides an easy mark of identification. It is steered with a quarter rudder when sailing and with a long sweep when rowed.

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Java (North Coast) - "Mayang." (continued)

Rig:

The rig consists of a pole mast stepped forward of half length stayed by a single backstay attached to the upper sternpost. There are no shrouds. The fore and aft sail is of trapezoidal shape with bamboo yard and boom. Both spars are longer than the boat and reach out aft. When furling the sail is rolled around the boom. Owing to its large beam the "Mayang" has good stability under sail and is said to be fast with a free wind. They are not designed for tacking or close-hauled sailing. Oars with narrow blades are used on the fishing grounds when setting the net.

Typical Dimensions:

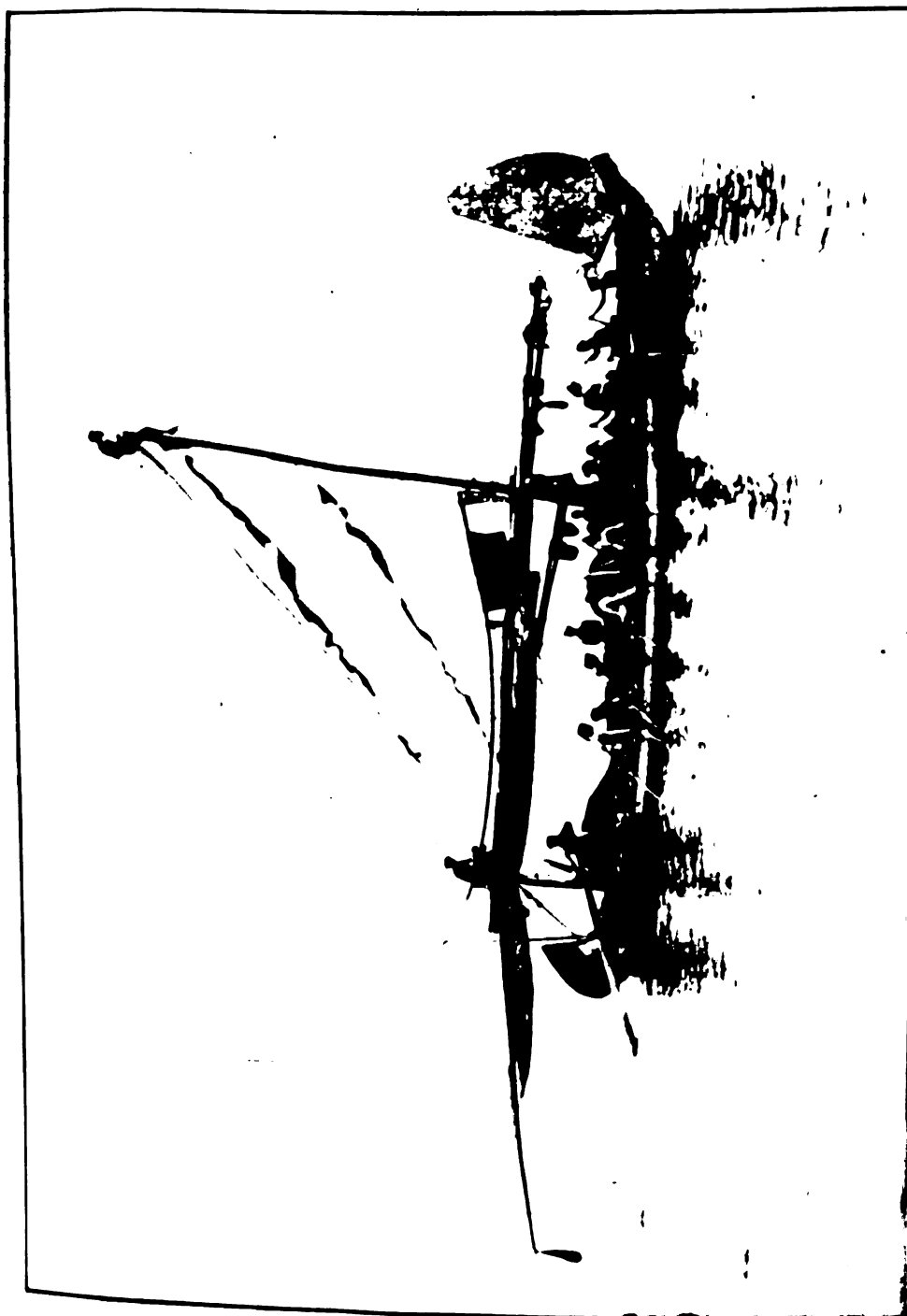
Length 40.9 Breadth 9.8 Depth 2.9 feet

Crew from 8 to 30, according to size of boat and gear used.

References:

Van Kampen, P. N.- Zeevisscherij op Java en Madoera.-
Batavia, 1909.

Notes:



JAVA (North Coast) "Mayang". After Van Kampen.

OSS R 738550

J A V A (North Coast)

Pekalongan Residency

Local Name of Craft: (25) "Klitjiran."

Type and Use:

Small dugout canoe with double outriggers, no
washstrake, used for fishing in sheltered waters.

Notes:

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J A V A (North Coast)

Pekalongan Residency

Local Name of Craft:

(26) "Monting."

Type and Use:

A small variety of "Mayang" boat using a seine net (Tjantrang) or a large cast net (Jala Ekor). It has a crew of 3. Also called "Tjumenting" or "Kumenting".

Notes:

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J A V A (North Coast)

Pekalongan Residency

Local Name of Craft: (27) "Boso."

Type and Use:

A term which refers to a plank-built "Mayang".

Dimensions: (medium)

approximate length: 7' Petak.

Notes:

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J A V A (North Coast)

Pekalongan Residency

Local Name of Craft: (28) "Mlaten."

Type and Use:

Plank-built fishing craft of the "Mayang" type.

Notes:

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J A V A (North Coast)

Samarang Residency

Local Name of Craft: (29) "Pegon."

Type and Use:

a plank-built fishing boat similar to a large
"Mayang". The name is only used in Kendal.

Notes:

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J A V A (North Coast)

Semarang Residency

Local Name of Craft: (30) "Tjemplon."

Type and Use:

A sailing coaster with keel-built hull employed mostly between the ports of Semarang and Japara.

This name is also given to a dugout canoe with outriggers employed in the coastal fisheries of Semarang. Plank washstrake.

Dimensions:

Length 15 feet Breadth 3 feet

Notes:

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KARIMON - Java Archipelago

Djapara Residency

Local Name of Craft: "Pemancha." (not on map)

Type and Use:

A plank-built fishing craft with large beam, good sheer and high sides. The fore part of the stem-head and after part of the stern post are rounded off. It is fitted with two quarter rudders.

Notes:

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KARIMON - Java Archipelago

Djapara Residency

Local Name of Craft: "Sampan Bugis." (not on map)

Type and Use:

A plank-built trading craft employed for the transportation of rhizofer bast.

Notes:

RESTRICTED

RESTRICTED

KARIMON - Java Archipelago

Djapara Residency

Local Name of Craft:

"Sope." (not on map)

Type and Use:

A plank-built barge like craft with high sides
and long pointed ends.

Notes:

RESTRICTED

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J A V A (North Coast)

Rembang Residency

Local Name of Craft: (31) "Jukung-Arad."

Type and Use:

A plank-built boat of the "Mayang" type employed in the fisheries of the Rembang Residency with a drag net called "Payang-Arad".

Notes:

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J A V A (North Coast)

Rembang Residency

Local Name of Craft: (33) "Prahu Timba."

Type and Use:

A plank-built fishing craft of the smaller "Mayang"
type employed in the fisheries and for transportation
in the Rembang Residency.

Notes:

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J A V A (North Coast)

Rembang Residency

Local Name of Craft: (34) "Jukung Jaten."

Type and Use:

Small dugout canoe employed in the fisheries of the
Sarang district.

Notes:

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J A V A (North Coast)

Rembang Residency

Local Name of Craft: (35) "Jukung Banatan."

Type and Use:

Large dugout canoe with sides raised by a plank washstrake employed in the deep sea fisheries with the "Payang" net. The crew in the largest is composed of 13 men.

Notes:

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J A V A (North Coast)

Rembang Residency

Local Name of Craft:

(36) "Prahu Tamben."

Type and Use:

A trading craft from Rembang.

Notes:

RESTRICTED

RESTRICTED

J A V A (North Coast)

Rombang Residency

Local Name of Craft:

(37) "Senti."

"Senteh."

Type of Craft:

A plank-built canoe with double outriggers used for transportation in Tuban and Madura Island. The upper part of the stem curves inward and generally the construction of the hull is similar to that of the "Sekong".

Rig:

It is rigged with a mast and quadrilateral sail.

Notes:

RESTRICTED

RESTRICTED

J A V A (North Coast)

Rombang Residency

Local Name of Craft: "Bese." (Sec 27)

Type and Use:

A term which refers to two types of boats:

(A) An open sailing barge employed in the coastal waters between Semarang and Sidayu.

(B) A plank-built fishing craft of the "Mayang" type found on the northern coast of middle Java.

Notes:

RESTRICTED

J A V A (North East Coast)

Residencies of Rembang - Surabaya - and Pasuruan

Local Name of Craft: (32) "Sekong."

"Prahu Sekong."

Type and Use:

A double outrigger dugout canoe used for transportation and fishing.

Constructional and other Features:

The hull is composed of a dugout basis with sharp ends raised by a deep wahstrake at sides, the latter having a small tumble home. The stem and stern are curved and have long overhangs. A quarter rudder is used for steering.

Rig:

Two different rigs are used. In the Sekongs from Surabaya and Pasuruan there is no mast. The yard of the triangular sail is stepped in the bow and held up by a bamboo strut or prop. (Sokungan) In other craft there is a short heavy mast fastened to the forward outrigger boom, on which is set a quadrilateral or triangular sail with yard and boom.

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J A V A (North East Coast)

Residencies of Rembang - Surabaya - and Pasuruan

"Sekong." - "Prahu Sekong." -(continued)

Dimensions (average):

Length 21.7 feet Breadth 2.7 feet Depth 1.3 feet

The length of some of the larger craft attains

35 feet.

References:

Noteboom, C. - De Boomstamkano in Indonesie. -

Leiden, 1932.

-- Encyclopaedie van Nederlandsch Indie. - Leiden, 1927.

Van Kampen, P.N. - Zeevisserij of Java en Madura. -

Batavia, 1909.

Notes:



JAVA (North East Coast) Residencies of Rembang, Surabaya, and Pasuruan.

CSS R 738551

"Sekong".

BAVIAN ISLAND

(Surabaya Residency)

Local Name of Craft: "Sampan Payang." (not on map)

Type and Use:

A plank-built craft, without outriggers, and with short stem and sternpost employed in the fisheries. The hull model differs from the other types of craft and it is therefore believed to be of foreign origin.

Notes:

BAVIAN ISLAND

(Surabaya residency)

Local Name of Craft: "Jukung Ponayangan." (not
on map)
"Jukung Mantjingan."

Type and Use:

Small dugout canoe with forked bow, rounded stern
and plank washstrake employed in the hook and line
fisheries of Bavian Island. It has double outriggers
and is rigged with a spritsail and jib. The same
type exists on the North Coast of Madura Island.

Notes:

See Figure 4 of Supplement.

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

Unknown

Type and Use:

A half-decked two masted sailing craft employed in the inter-island trade between Java, Borneo and Southern Malay Peninsula.

Constructional and other Features:

Keel-built double-ended hull is made of teak wood. It has no frames and is held together by cross beams which project through the hull planking. The carvel planking is secured at edges by wood dowells about one inch diameter. Amidships there is a thatched roof of woven matting extending for about 25 feet under which the cargo is stored. A floor matting is laid above the hold and the space under the roof is used as living quarters for the crew. Two quarter rudders hung by rattan strops from a carved wooden bollard and provided with a short carved tiller are used for steering. Two carved crutches, one at each end of the boat, are used for stowing yards and booms when not in use.

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

Unknown -(continued)

Rig:

The rig consists of two short masts of rectangular section stepped forward of the deck house or roof, each of which sets a triangular shaped sail with bamboo yard and boom. The foresail has about half the area of the mainsail. When sailing a weighted balance pole is rigged out on the weather side.

Dimensions and capacity:

Length 55.0 Breadth 13.0 Depth 5.0 feet

Sail area 629 square feet

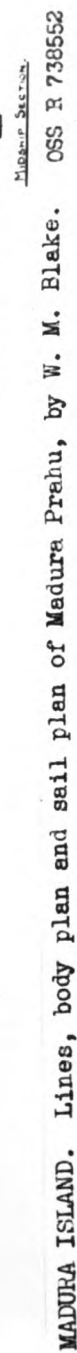
Crew 6

References:

Blake, W.M. - The Madura Prau. - New York, 1929.

Notes:

RESTRICTED



MADURA ISLAND

(Madura Residency)

Local Name of Craft: (38) "Peduang."Type and Use:

A plank-built trading boat from Madura and North Eastern Java, with double outriggers. It has the same hull-form with forked ends as the "Alis-Alis" and is rigged with two masts. The fore mast is short and fixed; the main mast is a sort of pole or strut which holds up the yard of the lateen shaped sail. The dimensions vary widely. The largest craft have a length of 46 to 52 feet, while the smallest may have no more than $16\frac{1}{2}$ feet length.

Notes:RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(39) "Kareket."

Type and Use:

Plank-built outrigger canoe employed in the
trawl line fisheries of Madura Island.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency).

Local Name of Craft:

(40) "Mayangan."

"Permayang."

Terms used in Madura to denote the "Mayang"

from Java.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (41) "Jukung Payang."

Type and Use:

A large dugout canoe with double outrigger. It is employed in the fisheries of the North Coast of Madura and uses a large drag net called "Payang" hence its name. These craft are manned by a crew of five and stay out to sea for several days. The catch is taken ashore each day by native carrier boats.

Dimensions (average):

Length 39 feet Breadth 2.4 feet Depth 3.1 feet

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(42) "Lambut."

Type and Use:

A keel-built fishing craft from Sumenep with center-line rudder and cutter rig. It is also found in the Besuki Residency and Bali Island. The hull construction is similar to that of European open boats. Also used as lighter.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (43) "Molangan."

Type and Use:

Double outrigger canoe used for trolling after
Tenggiri fish off Madura Island. It is rigged with
a triangular sail. The yard is stepped in the
fore part of the boat and held by a strut. No mast.

Dimensions (typical):

Length $24\frac{1}{2}$ feet Breadth $1\frac{1}{2}$ feet Depth $1\frac{1}{2}$ feet

Crew of 3.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (44) "Lung-Julung."

Type and Use:

A very small dugout canoe with double outriggers
employed in the hook and line fisheries on the
North Coast of Madura Island.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(45) "Nitih."

Type and Use:

A plank-built fishing craft from Madura Island,
with sharp rising stem and forked stern. It is
rigged with one mast and triangular sail.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(46) "Prahu Patetetan."

Type and Use:

A one man dugout canoe with double outriggers
employed in the hook and line fisheries of
Madura Island.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(47) "Pentor."

Type and Use:

Small fishing boat from Madura Island which works
with a hand net.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (48) "Jukung Pangopekan."

Type and Use:

Large dugout canoe with double outriggers of the same type as the "Jukung Payang" but smaller.

It engages in the fisheries of the North Coast of Madura Island and works with a small drag net called "Payang-Pangopekan".

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(49) "Mondet."

"Prahu Mondet."

Type and Use:

A plank-built fishing craft of same construction
and rig as the "Mayang" and employed in the
fisheries of Madura Island.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (50) "Julung."

Type and Use:

A plank-built deep sea trading craft from Eastern Madura similar to the Makassar - Buginese "Padukan". It is rigged with two tripod masts and gaff sails and provided with a portable deck made of bamboo splits. The Julung is generally used for transportation between Madura and the Islands of the Flores Sea.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (50) "Julung."

Type and Use:

A dugout canoe with double outriggers from Madura Island, with a forked stern similar to the tail of a fish called "Julung" hence its name. The yard of the triangular sail is stepped in the bow and held up by a strut.

Notes:

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (51) "Kroman."

Type and Use:

A fishing craft similar in hull form to the
"Alis-Alis" but fitted with a loose decking. It
is employed in the "Nener" fisheries of Madura,
the Sapudi Archipelago and Pasuruan Residency.

Dimensions (typical):

Length 37.7 feet Breadth 10.2 feet Depth 3.3 feet

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft:

(57) "Blatik."

"Prao Blatik."

Type and Use:

A plank-built fishing boat of the "Mayang" type
from Pulo Kembang in the Madura Strait. The hull
is built of Jati wood.

Notes:

RESTRICTED

RESTRICTED

MADURA ISLAND

(Madura Residency)

Local Name of Craft: (64) "Prahu Ngadang."

Type and Use:

A plank-built craft from North Madura of same type and construction as the "Alis-Alis" and covered with a thatched roof. It is used as a fish carrier.

Notes:

RESTRICTED

RESTRICTED

SAPUDI ARCHIPELAGO

(Madura Residency)

Local Name of Craft: (51) "Kroman."

Type and Use:

A plank-built trading craft with double outriggers.

Notes:

RESTRICTED

SAPUDI ARCHIPELAGO

(Madura Residency)

Local Name of Craft:

(52) "Moloan."

"Lomolowan."

Type and Use:

A small dugout canoe with double outriggers.

According to some writers no washstrake is built

over the sides. It is generally employed in the

fisheries. The same type of craft is also

found on the West Coast of Madura Island.

Notes:

RESTRICTED

SAPUDI ARCHIPELAGO

(Madura Residency)

Local Name of Craft: (53) "Tekletek."

Type and Use:

A plank-built sailing craft employed in the fisheries
and for inter-island transportation in the Sapudi.

It is rigged with one mast and triangular sail.

Notes:

RESTRICTED

SAPUDI ARCHIPELAGO

(Madura Residency)

Local Name of Craft:

(54) "Kolekan."

"Sampan Kolekan."

Type and Use:

A plank-built sailing craft used for transportation in the Sapudi Archipelago. It is larger than the "Kolekan" from Java and is provided with a palm-leaf or plank roofing which extends over most of its length.

Notes:

RESTRICTED

RESTRICTED

J A V A (North Coast)

Surabaya Residency

Local Name of Craft: (55) "Ijon-Ijon."

Type and Use:

A plank built boat employed in the hook and line fisheries of Surabaya and Tuban. It is of similar construction as the "Kolekan".

Notes:

RESTRICTED

RESTRICTED

J A V A (North Coast)

Surabaya Residency

Local Name of Craft: (56) "Prahu Jaten."

Type and Use:

A dugout canoe with double outriggers, flat bottom, sharp straight raking bow and stern. The rig consists of a mast fastened to the forward outrigger boom and triangular shaped sail with yard and boom.

Notes:

RESTRICTED

J A V A (North Coast)

Surabaya Residency

Local Name of Craft: (59) "Kolekan."

Type and Use:

A plank built canoe without outriggers used for transportation and occasionally for fishing in the Surabaya Residency. It should not be confused with the "Mayang" type of craft, the same name found in other districts. (Pasuruan)

Notes:

RESTRICTED

RESTRICTED

J A V A (North Coast)

Surabaya Residency

Local Name of Craft: (64) "Prahu-Ngadang."

Type and Use:

A plank built fishing boat of similar construction as the "Alis-Alis" but provided with a roofing made of palm leaves. It is chiefly used as a buy-boat.

Notes:

RESTRICTED

RESTRICTED

J A V A (North East Coast)

Residencies of Surabaya and Pasuruan

Local Name of Craft: (58) "Alis-Alis"
"Prahu Alis-Alis."

Type and Use:

A plank-built fishing craft employed in shrimp and crab fisheries in the Madura Strait and adjacent waters. The hull is constructed with transom bow and stern and the keel plank is prolonged outboard beyond the ends of the boat at water line level. It is of the same type as the "Jangolan" but smaller.

Dimensions (average):

Length 24.6 feet Breadth 5.2 feet Depth 1.6 feet.

Notes:

RESTRICTED

RESTRICTED

J A V A (North East Coast)

Pasuruan Residency

Local Name of Craft: (59) "Kolekan."

Type and Use:

A plank built fishing craft of Eastern Java of similar hull design and rig as a small "Mayang". The stem and stern post do not have the recurving blade-shaped ornament which exists in all "Mayang" craft. Crew 10 to 12. The mast is portable. In Besuki it is called "Sampan Kolekan" or Prahujarid" - in Surabaya "Ijon-Ijon".

Notes:

RESTRICTED

J A V A (North East Coast)

Pasuruan Residency

Local Name of Craft: (60) "Sampan-Jaringan."

Type and Use:

A dugout canoe without outrigger or occasionally fitted with a single outrigger, and employed in the fisheries of the Probolinggo. It works with a net called "Jaring".

Rig:

One short mast with triangular sail.

Notes:

RESTRICTED

J A V A (North East Coast)

Pasuruan Residency

Local Name of Craft: (61) "Janggolan."

Type and Use:

A plank-built boat similar to the "Alis-Alis" but larger and decked. It is employed for transportation in Eastern Java and in the Strait of Madura. The bow and stern are transomed. The sides are painted white with two rows of black specs. The ends of beams project outboard. The rig consists of a jibboom and a short foremast stepped near the stem. The triangular mainsail is supported by a strut as in the "Sekong". A thatched roofing made of bamboo mats is provided as a protection against rain and sun.

Notes:

RESTRICTED

RESTRICTED

J A V A (North East Coast)

Pasuruan Residency

Local Name of Craft: (62) "Tiak-Lantiak"

Type and Use:

A dugout canoe with double outriggers from the district of Probolinggo. The hull form is slightly different from that of the ordinary Sampan and outriggers are necessary to obtain better stability.

Dimensions:

Length 21.5 feet Breadth 2.6 feet Depth 1.3 feet

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (63) "Teladjangan."

Type and Use:

Dugout canoe with double outriggers, fork-shaped stern and washstrake made of planking or palm leaves. These craft are employed in the fisheries of the Besuki and Pasuruan Residencies.

Rig:

In some boats there is a short mast; in others the yard of the triangular sail is held up by a bamboo strut as in the "Sekong".

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (65) "Blandongan."

Type and Use:

A small dugout canoe with forked ends, washstrake at sides, and double outriggers employed in the fisheries and also for transportation between Banjuwangi and Besuki.

Rig:

The rig consists of one mast which carries a quadrilateral sail.

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft:

(66) "Peturusan."

Type and Use:

A plank-built craft without outriggers employed in the fisheries of Eastern Java with a stake-net called "Turus".

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (67) "Jukung-Jaring."

Type and Use:

One of the largest variety of the "Jukung" type of dugout canoes with double outriggers. The hull has forked (bifid) ends and the sides are raised by two strakes of planking above the dugout basis. These craft are employed in the fisheries off the Banyuwangi Coast and work with a seine net called "Jaring-Tamban".

Rig:

It is rigged with a tall mast and oblong quadrilateral sail.

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (68) "Prahu-Jarit."

Type and Use:

A plank built craft employed in the fisheries of

Besuki.. It works with a seine net called

"Payang-Jarit" hence its name.

Notes:

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (69) "Jukung-Jala."

Type and Use:

Small single-outrigger dugout canoe with washstrake made of palm leaves. It is employed in the fisheries off Banyuwangi and works with a cast net called "Jala" hence its name.

Rig:

No rig.

Notes:

RESTRICTED

RESTRICTED

J A V A (East Const)

Besuki Residency

Local Name of Craft: (70) "Jukung Manting."

Type and Use:

A double outrigger dugout canoe with forked ends and with sides raised by a two-plank washstrake, the upper plank of which is covered with Nipa leaves.

These craft are employed in the hook and line fisheries off the Banyuwangi coastal area.

Rig:

It is rigged with a short stump mast and triangular sail.

Notes:

RESTRICTED

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (71) "Prahu-Julung."

Type and Use:

A double outrigger dugout canoe with washstrake made of palm leaves. The bow is bifid (forked) and has a narrow jibboom-like projection standing out in line with the gunwales and above the actual stem. The stern is carried high in a great curve, by means of flattened pieces pegged on edgewise.

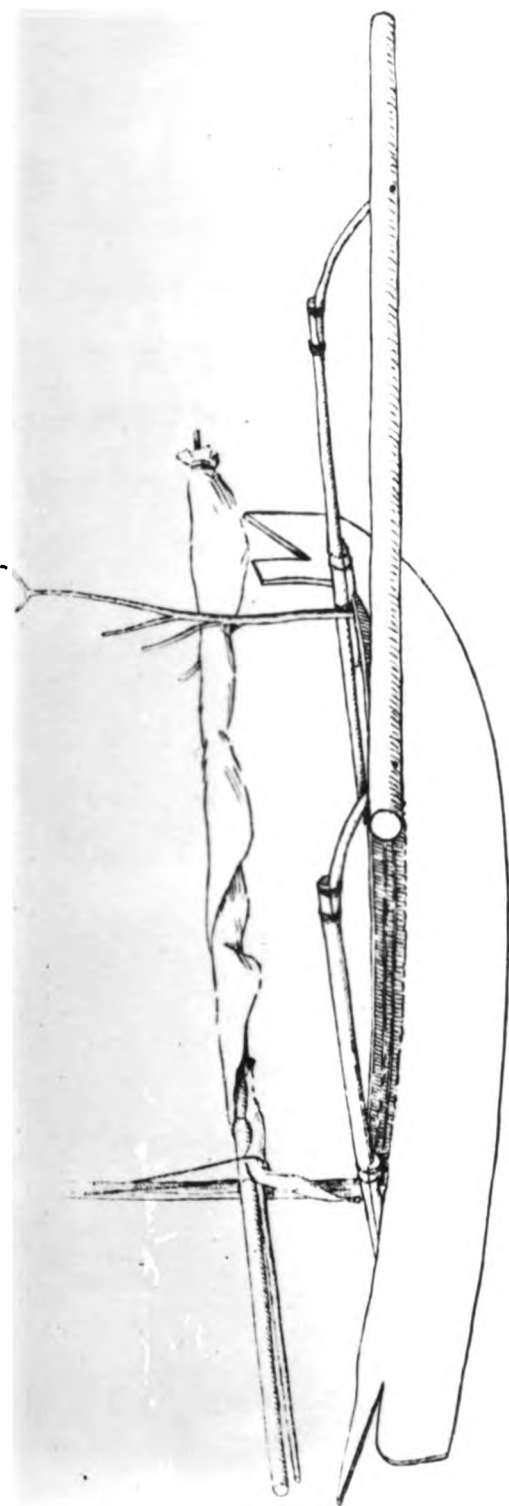
(Hornell). The smaller craft of this type are employed in the fisheries near Banyuwangi; the larger with a length of 30 feet or more, for transportation.

Rig:

It is rigged with a short heavy mast which carries a triangular sail with yard and boom.

Notes:

RESTRICTED



JAVA (East Coast) Besuki Residency. "Prah-Julung".

OSS R 738553

RESTRICTED

J A V A (East Coast)

Besuki Residency

Local Name of Craft: (72) "Jrupi."
"Jupri."

Type and Use:

A dugout-canoe with double outriggers and washstrake made of palm leaves employed in the gathering of turtle eggs on the sea shores of the Jember district (south coast of the Besuki Residency). In hull form it is similar to the "Jukung" from Madura Island.

Dimensions and Capacity:

It has a deadweight capacity of about 3 picul (400 pounds).

Crew 2 or 3.

Sail:

It is rigged with a quadrilateral sail.

Notes:

RESTRICTED

J A V A (South East Coast)

Kediri Residency

Local Name of Craft: (73) "Mantjung."

Type and Use:

One man dugout canoe without outriggers or washstrake employed in the strand fisheries of the bays of Prigi, Pangul, and Sumbreng (District of Trenggalek).

Rig:

There is no rig. A double bladed paddle is used.

Dimensions:

Length 13 feet Breadth 1.6 feet Depth 0.8 feet

Notes:

RESTRICTED

J A V A (South East Coast)

Kediri Residency

Local Name of Craft: (74) "Jaten."

Type and Use:

A small dugout capable of carrying one or two persons and employed in the strand fisheries of Gemak Bay and adjacent waters.

Constructional and other Features:

The hull consists of a very small dugout with long overhanging bow flat on the top and provided with a vertical fore and aft appendage under the overhang. At the stern there is a similar appendage deeper and with a square end. There is one thwart or cross piece placed forward of the half length.

Rig:

None. Double bladed paddles are used for propulsion.

Dimensions:

Length 8 to 10 feet Breadth 2 to 2 $\frac{1}{2}$ feet

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J A V A (South East Coast)

Kediri Residency

Local Name of Craft: (74) "Jaten." (continued)

References:

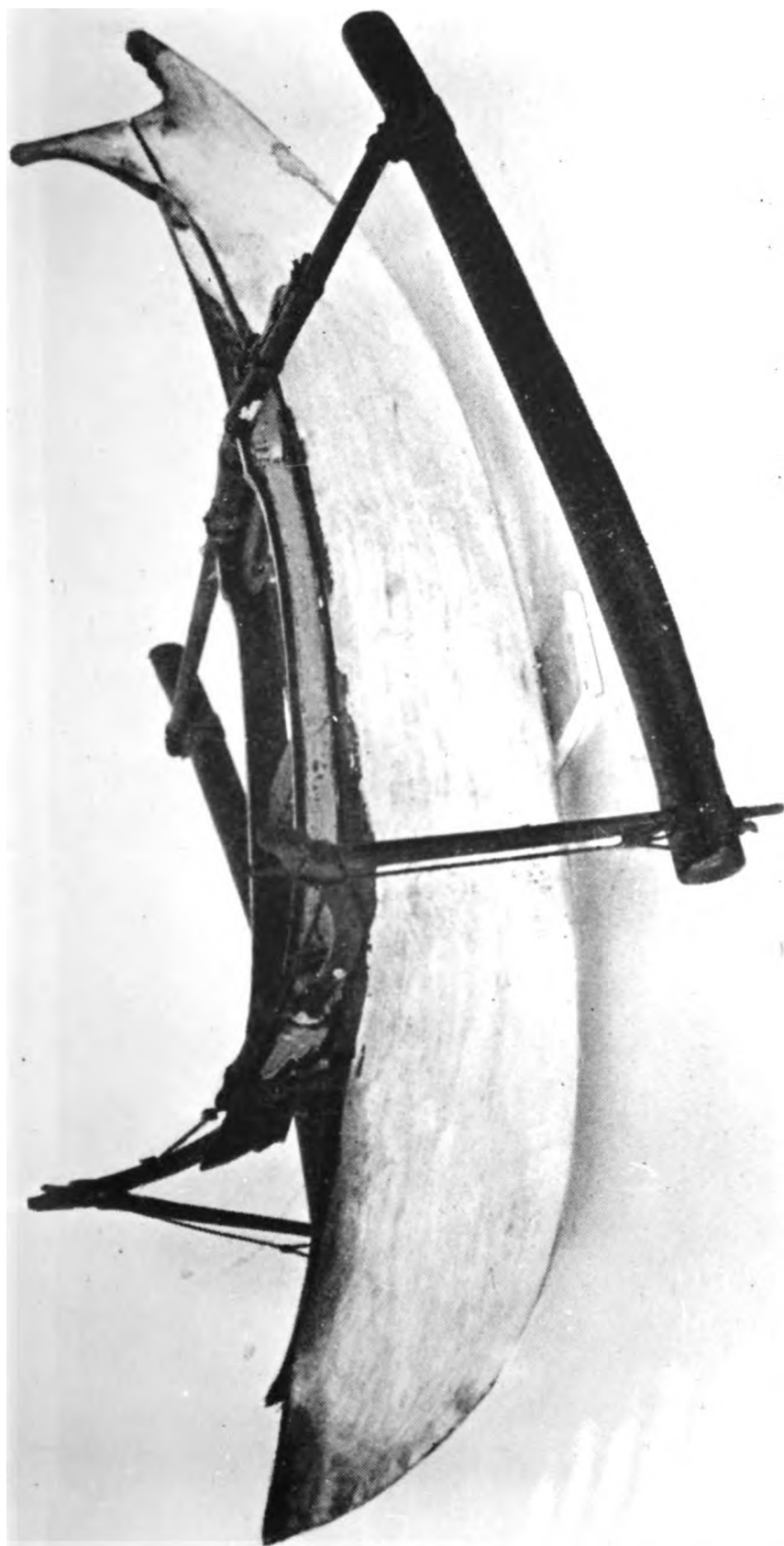
Noteboom, C. - De Boomstamkano in Indonesie. - Leiden, 1932.

Encyclopaedie van Nederlandsch-Indie. - Leiden, 1927.

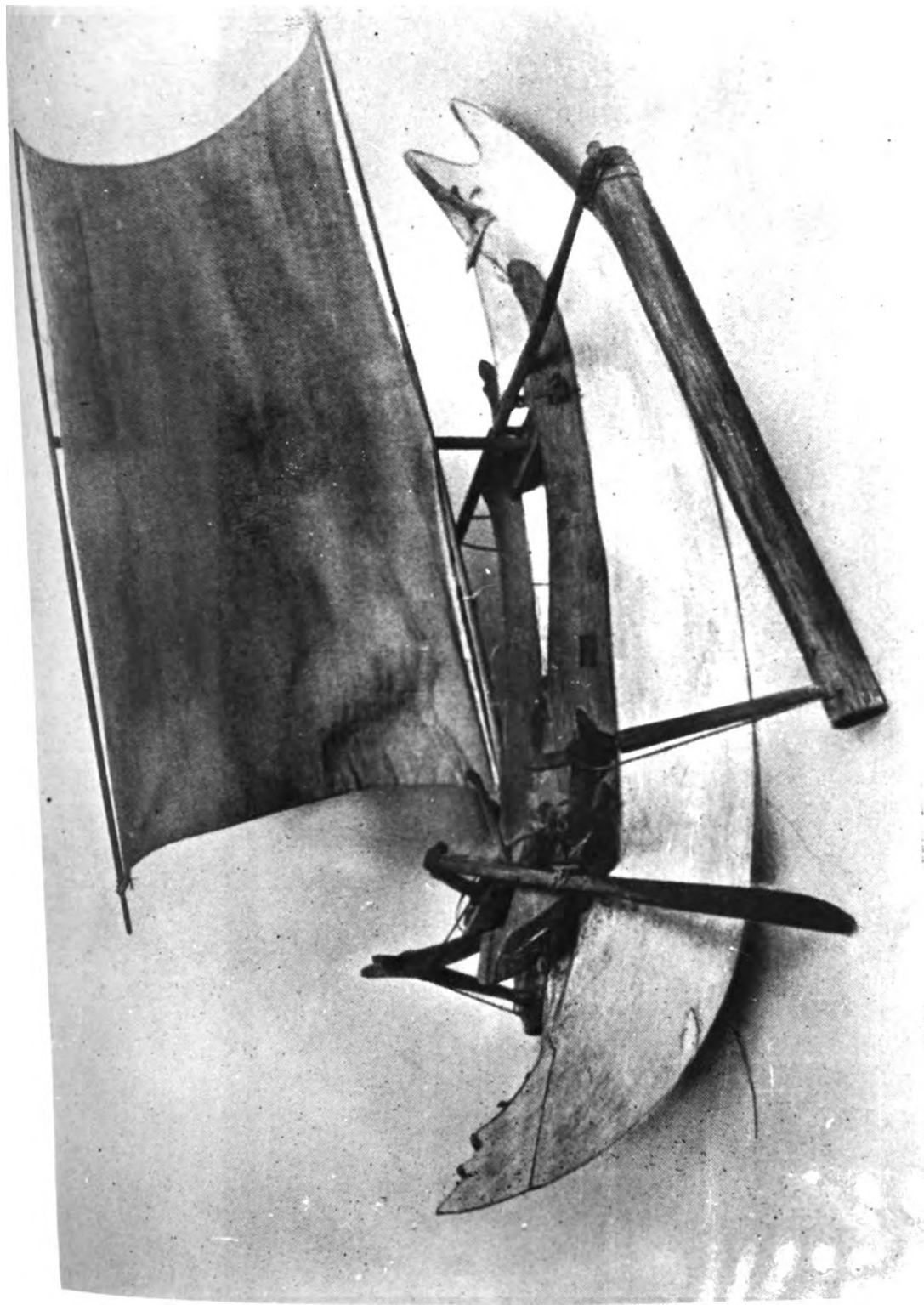
Notes:

The "Jaten" should not be confused with the "Prao Jaten" from the Surabaya Residency. The "Jukung Jaten" is a very small dugout canoe employed on the rivers near Banyuwangi.

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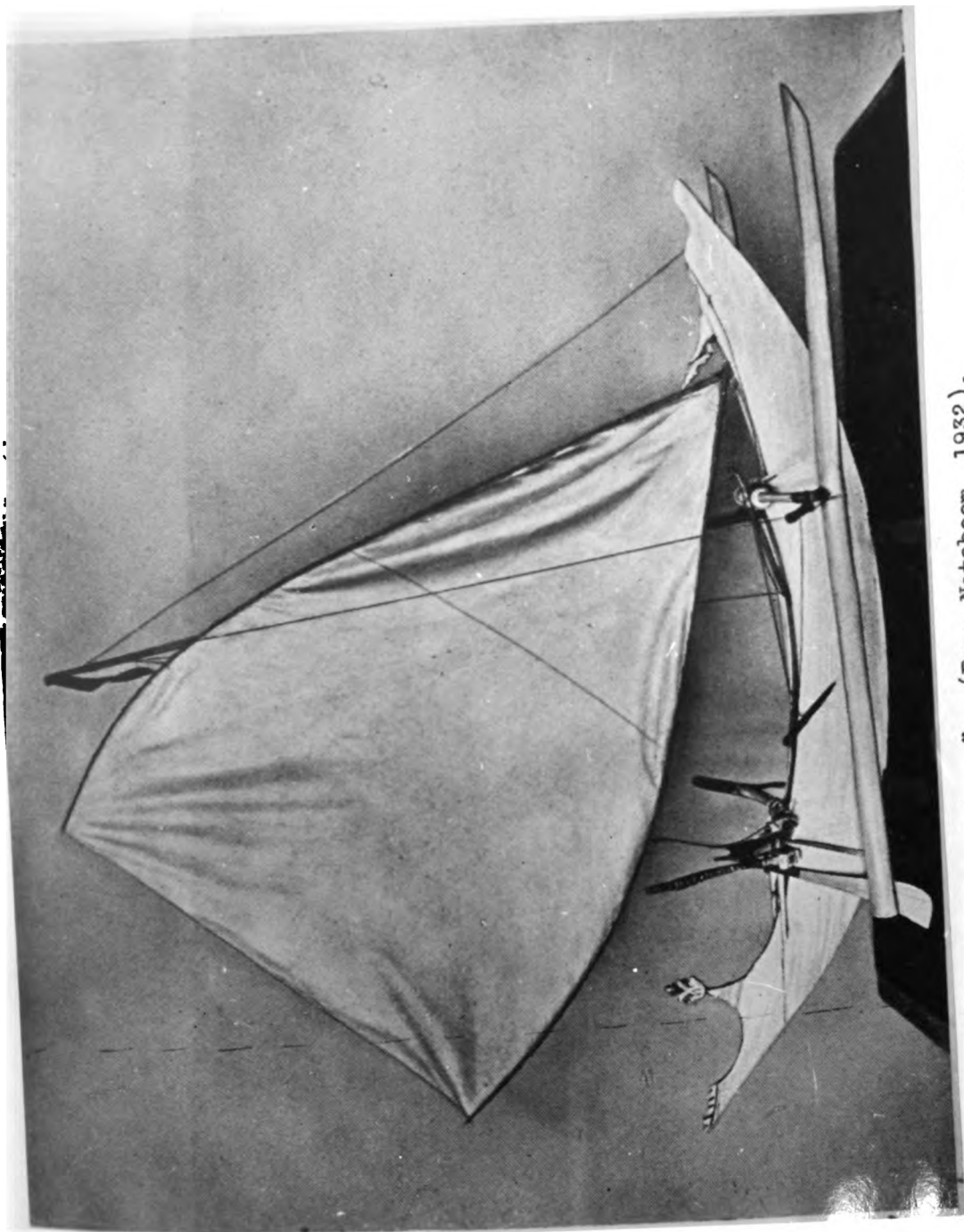


1. Model of "Jukung-Penayangan" from Bavian Island. (From Noteboom, 1932). OSS R 734304



2. Model of "Jukung-mantjingan" from Havian Island. (From Notelboom, 1932).

OSS R 734305

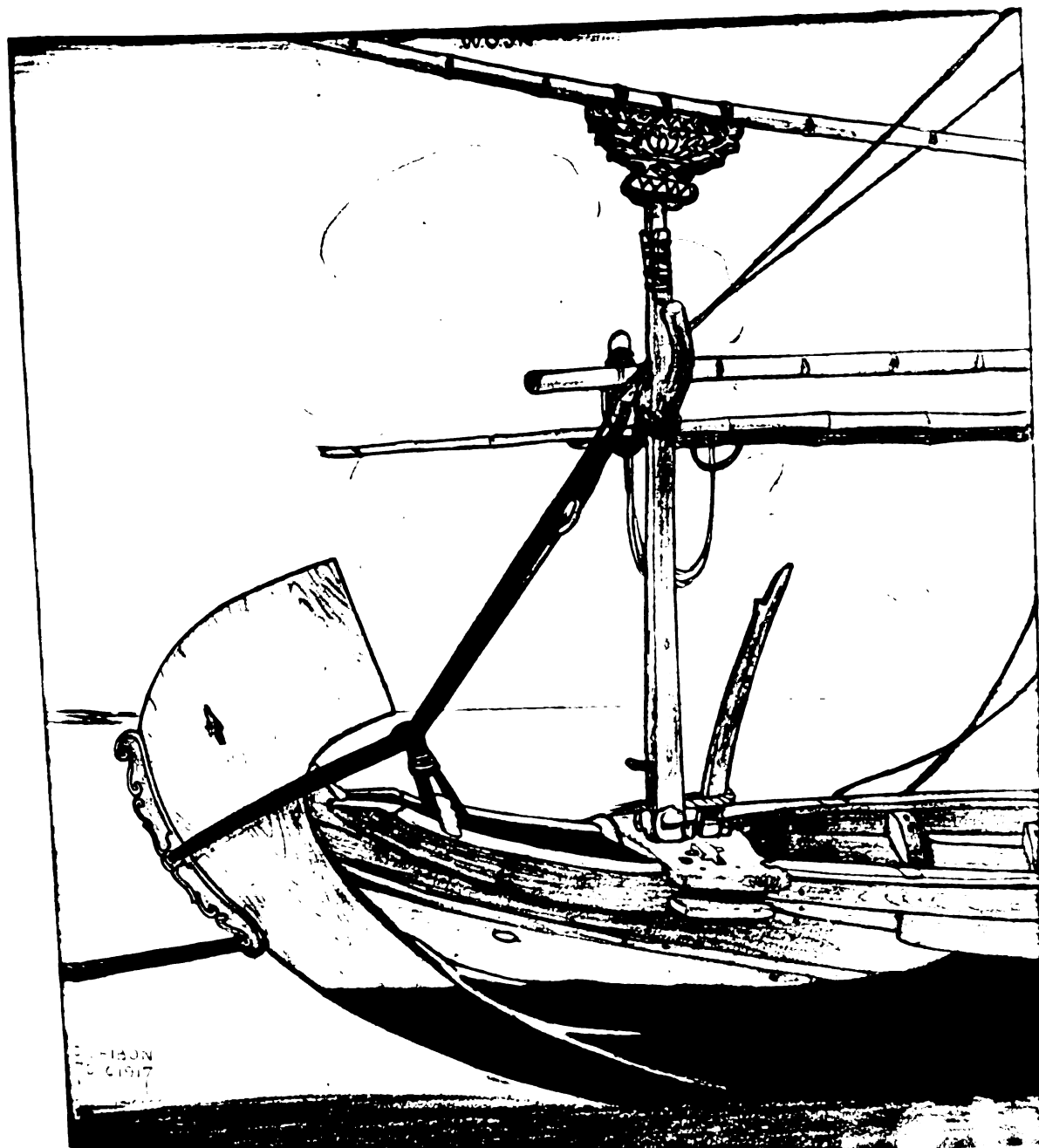


3. Model of "Prahu Sekong". (From Noteboom, 1932). OSS R 734291

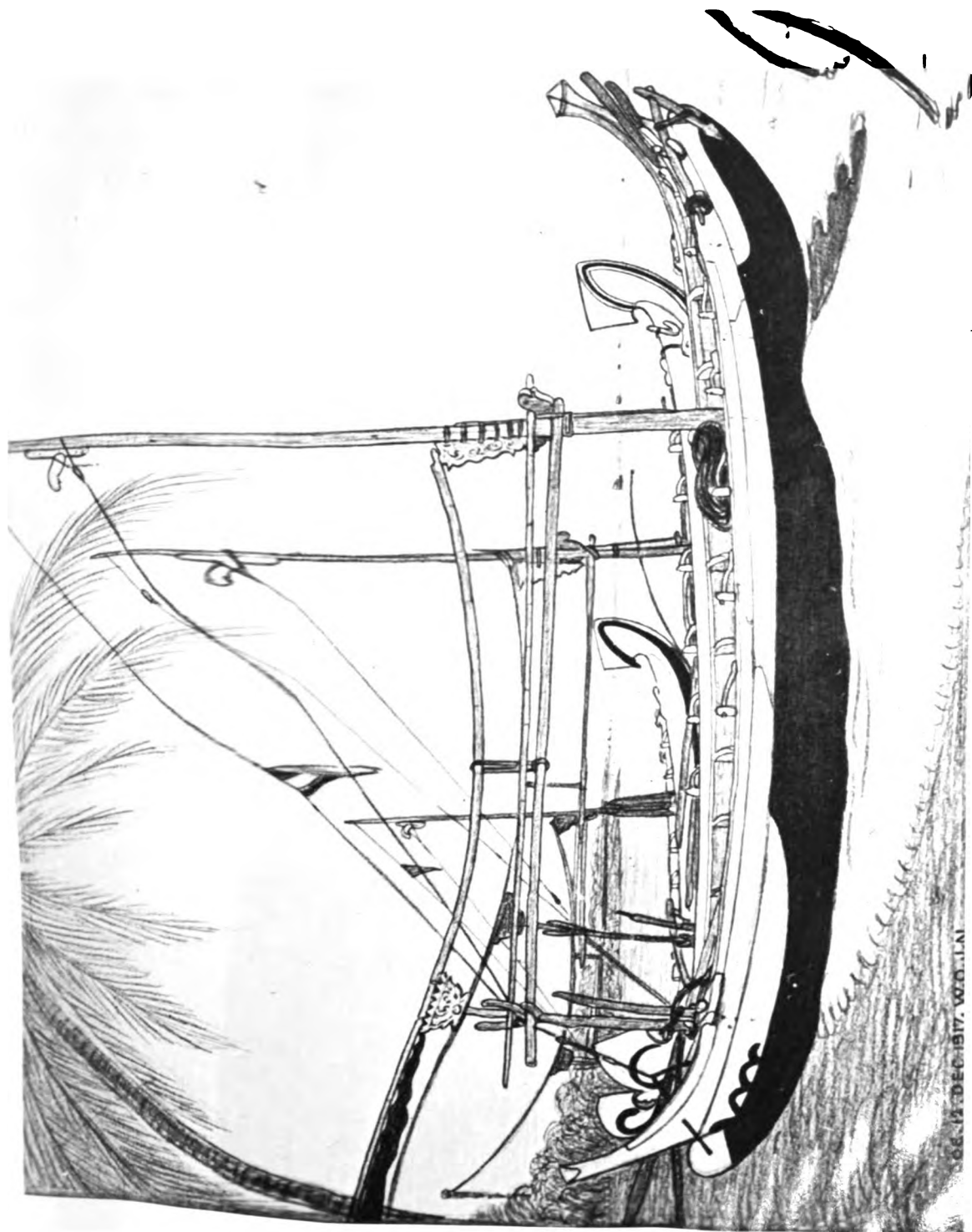


4. Native craft from Tandjong Priok.

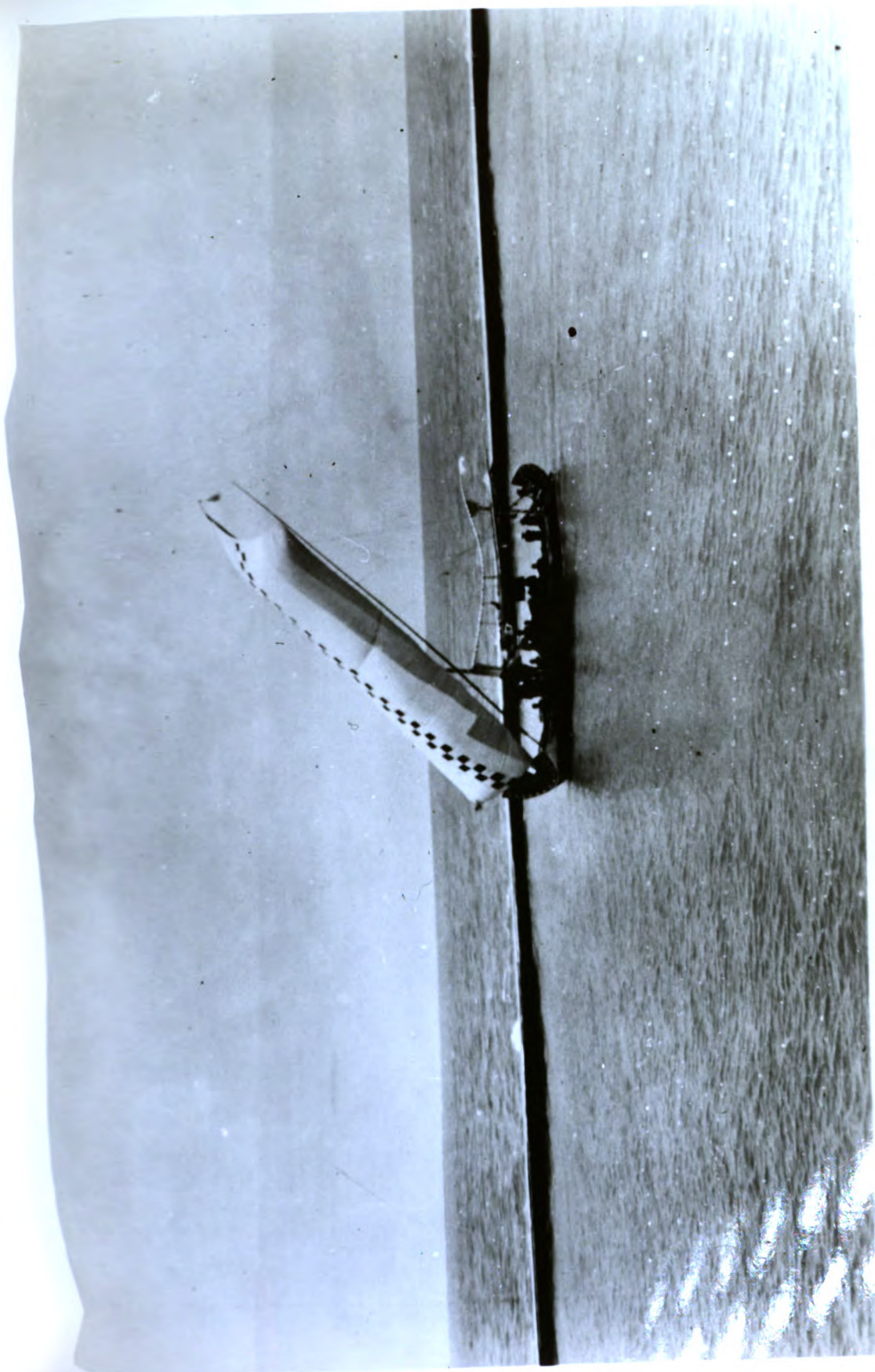
OSS R 738543



5. Stern of a "Majang" from Cheribon. (Drawing. 1926 or earlier).
OSR 34332

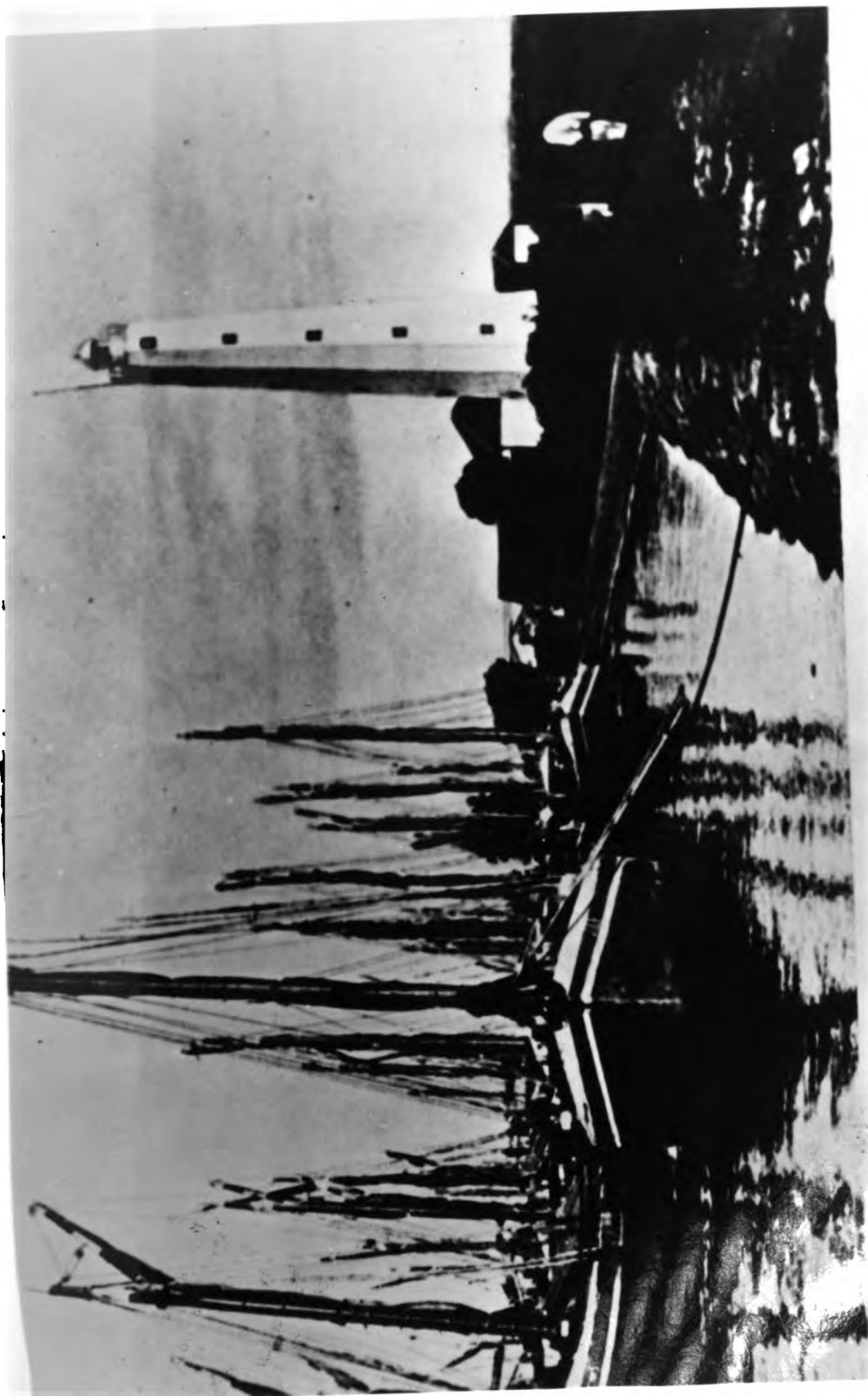


A "Majangkung" and two "Majanga" near Cheribon. (Drawing, 1926 or earlier).
OSS R 734333



7. "Mayang" from Semarang.

OSS R 4843



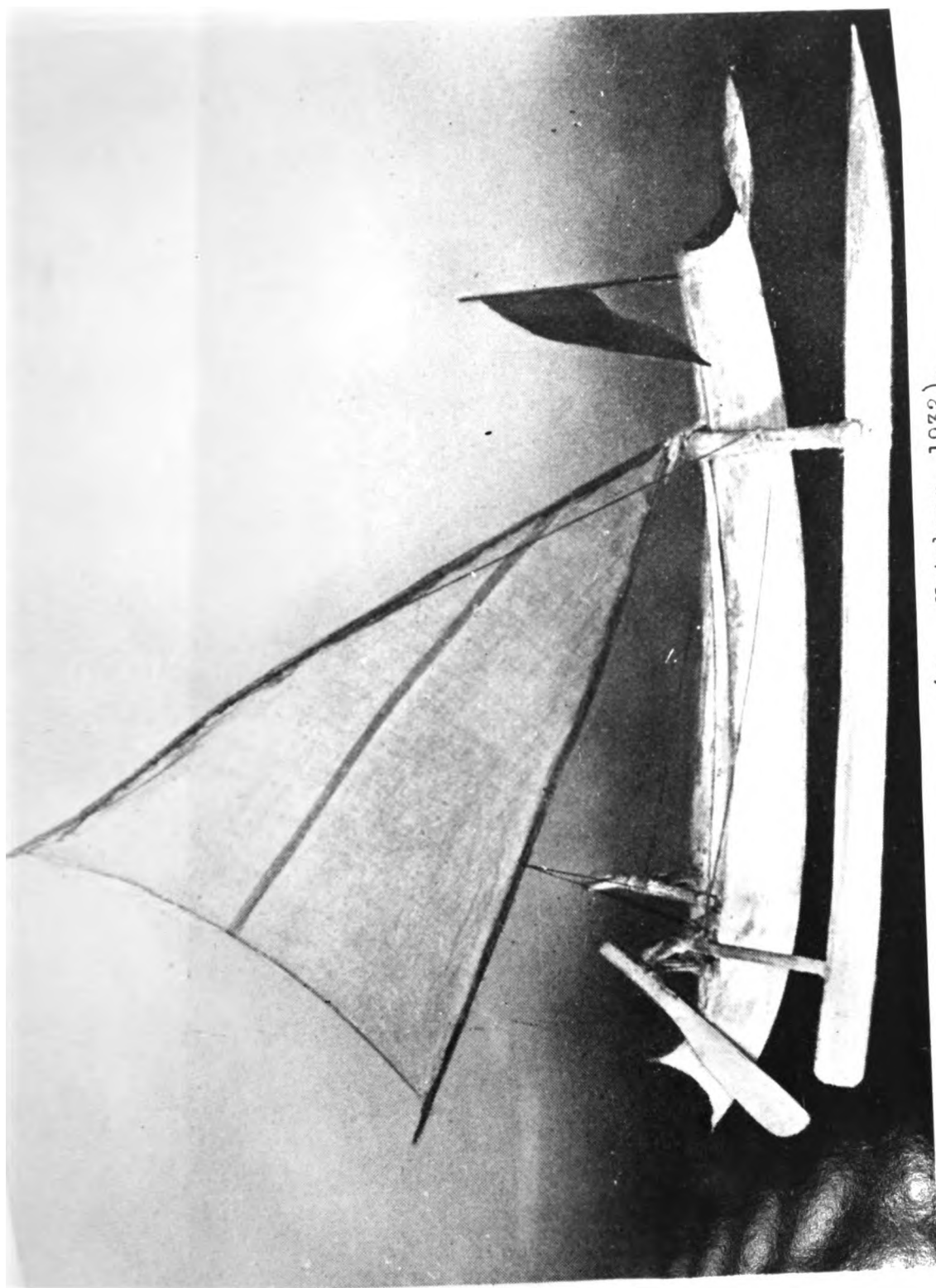
8. Prahus in harbor at Semarang.

OSS R 738544



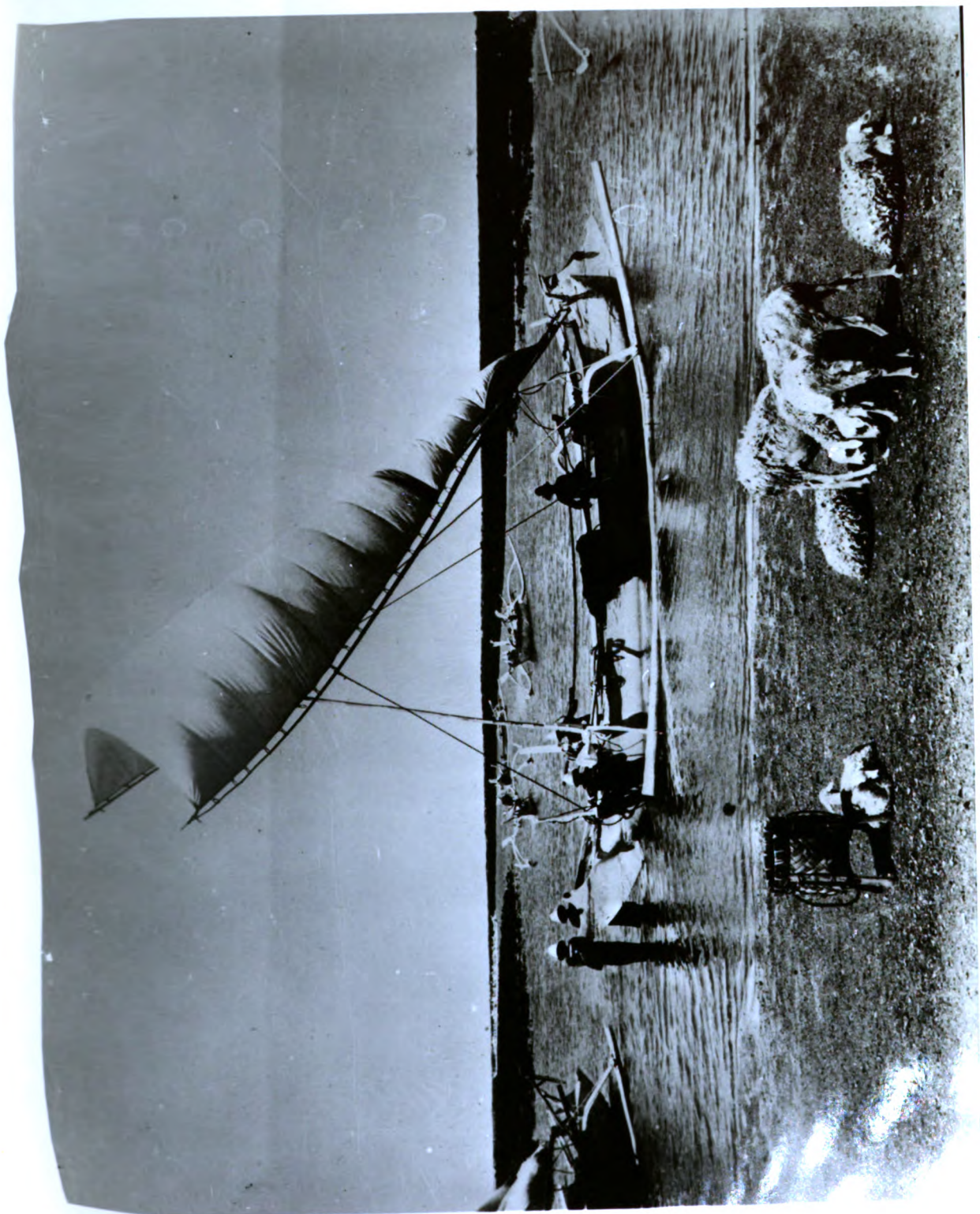
9. Native craft in the vicinity of Remberg.

QSS 1 732541



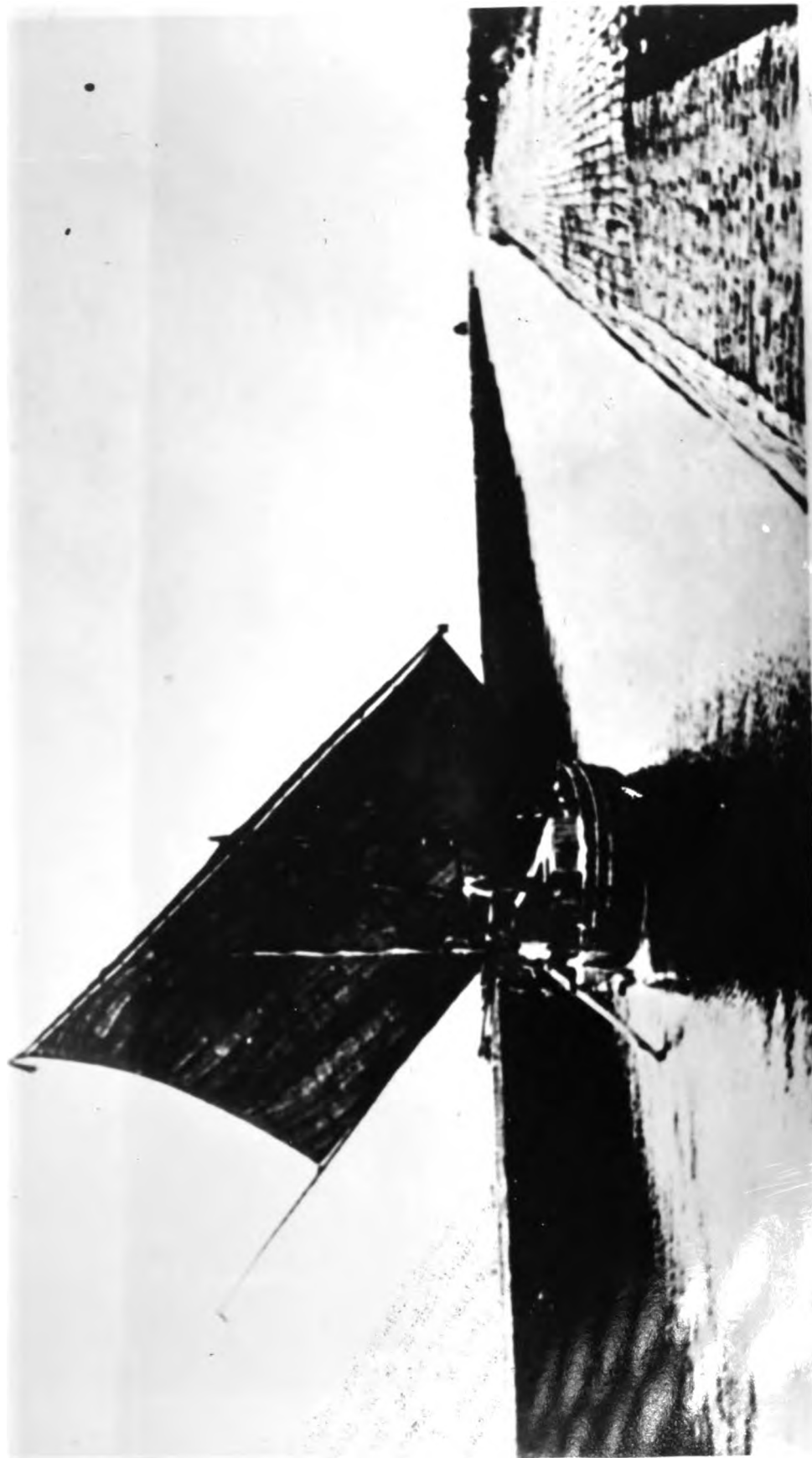
10. Model of "Sekong" from East Java. (From Noteboom, 1932).

OSS R 734293



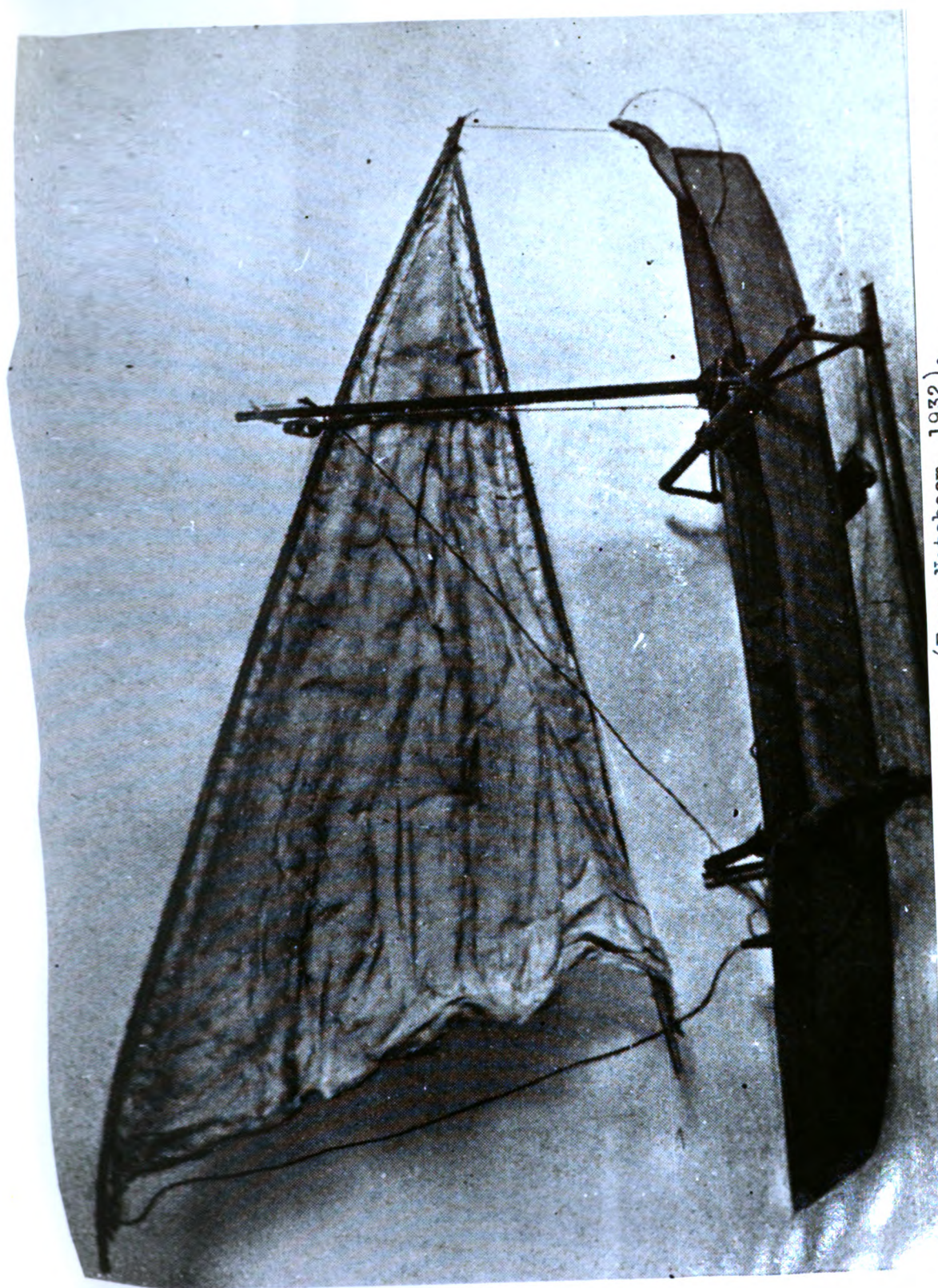
11. "Jukung" from Madura Residency.

OSS R 7666



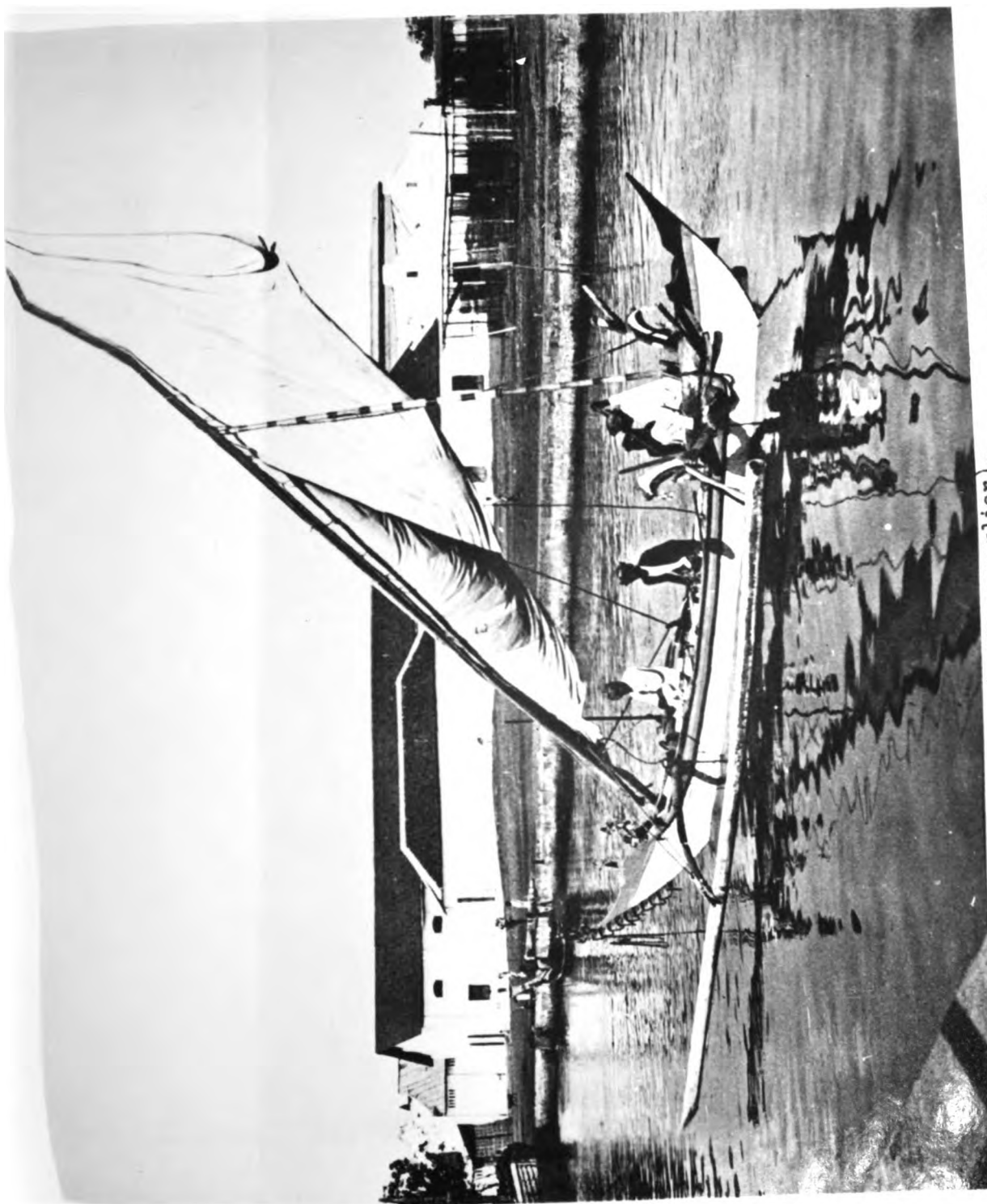
12. Trading prahu from Madura.

OSS R 738542



13. Model of "Prahu Djaten" from Surabaya. (From Noteboom, 1932).

• OSS R 734286



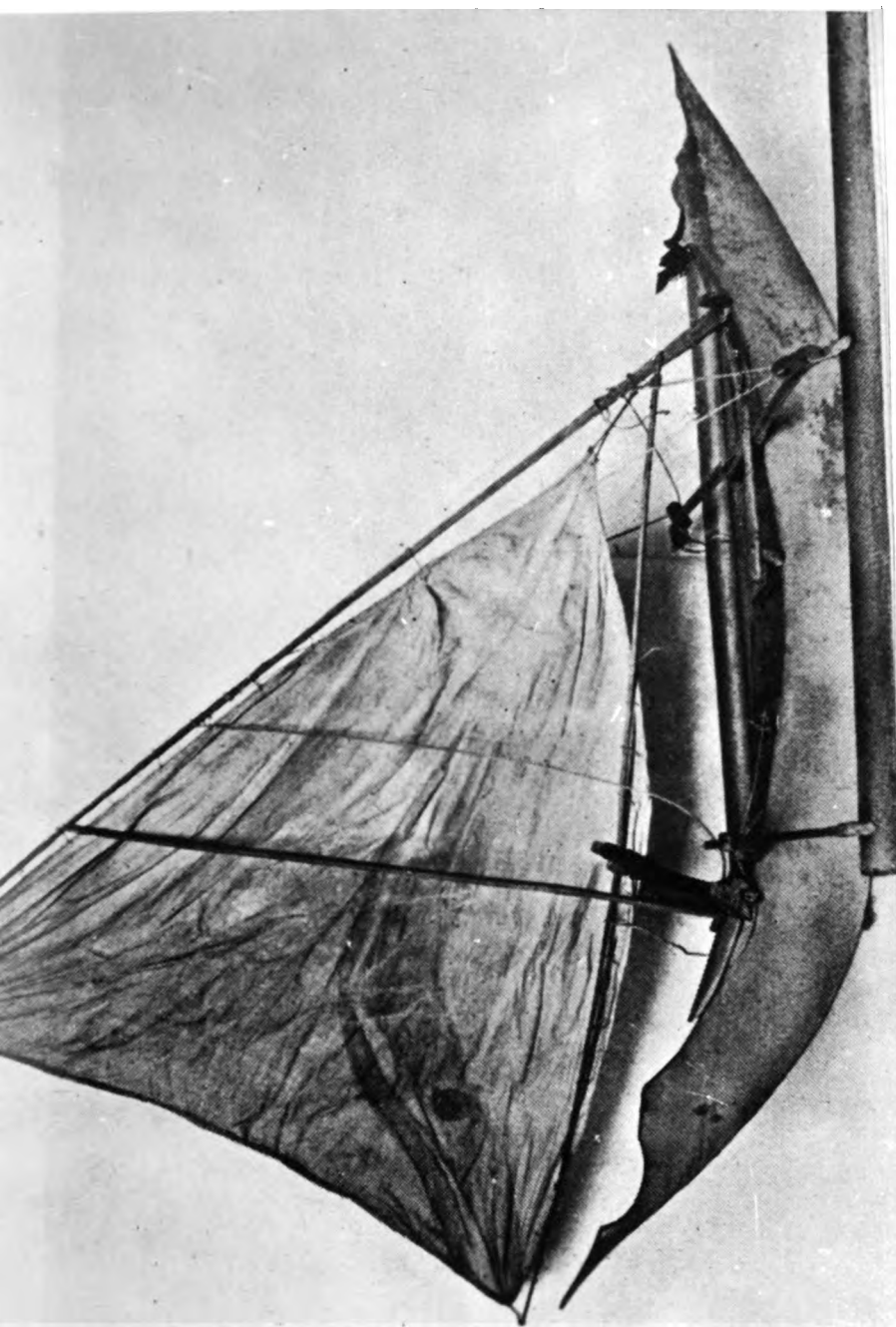
14. "Prahu Sekong" from Surabaya. (1932 or earlier).

OSS R 734295



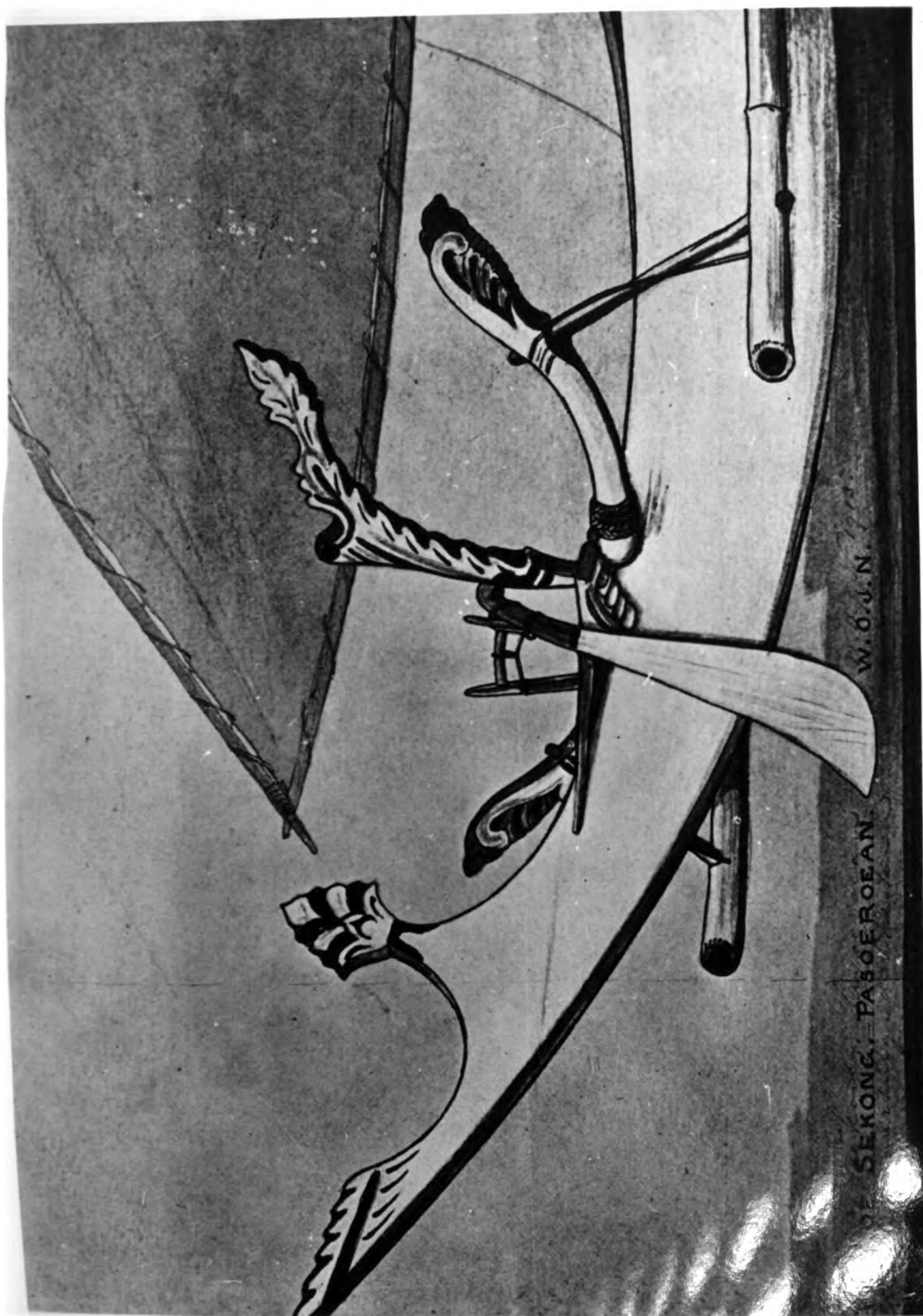
15. Native craft from Tandjong Perak.

OSS R 501390



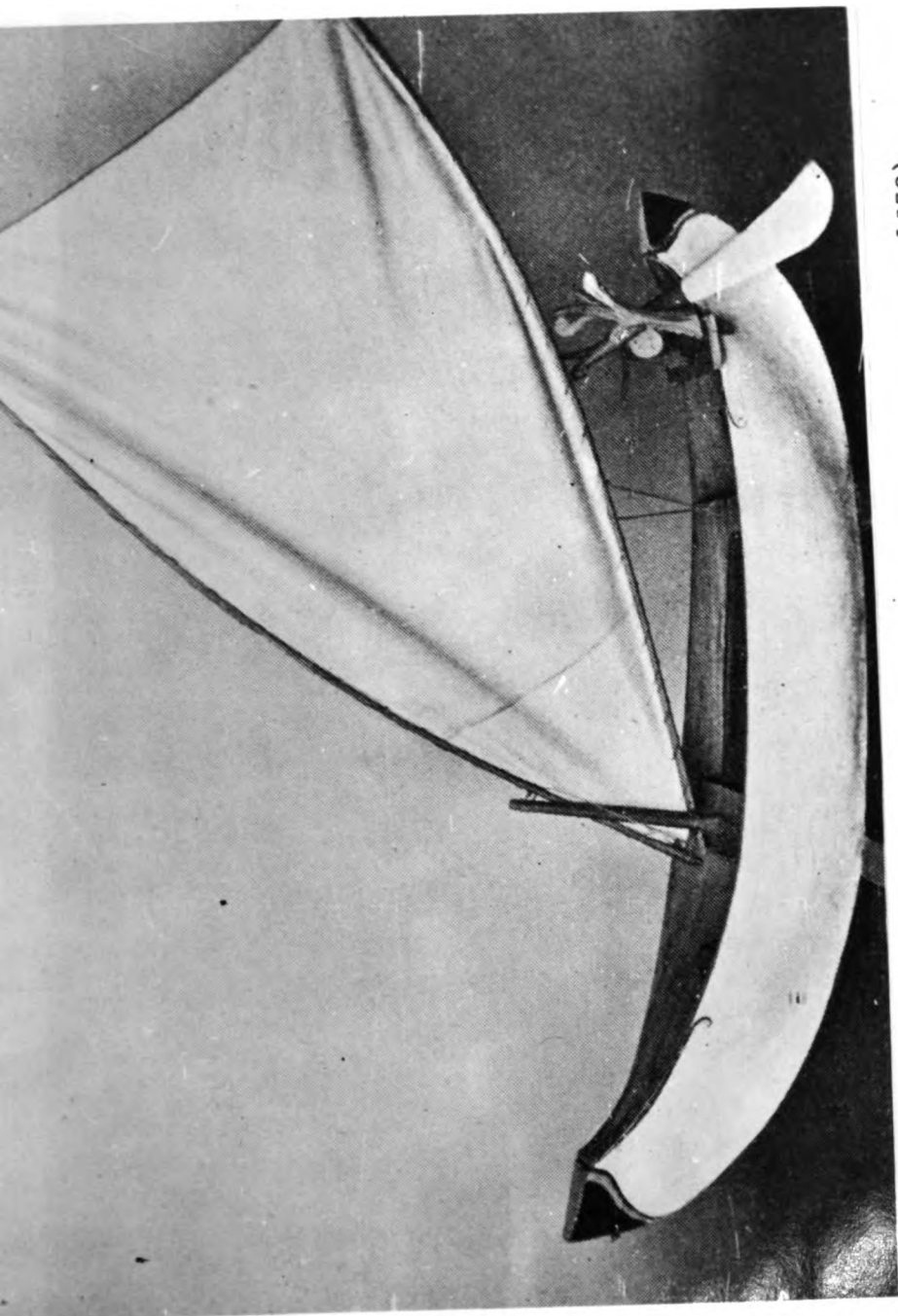
16. Model of "Sekong" from Pasuruan. (From Noteboom, 1932).

OSS R 734292



17. "rahu Sekong" from Pasuruan. (Drawing from Noteboom, 1932).

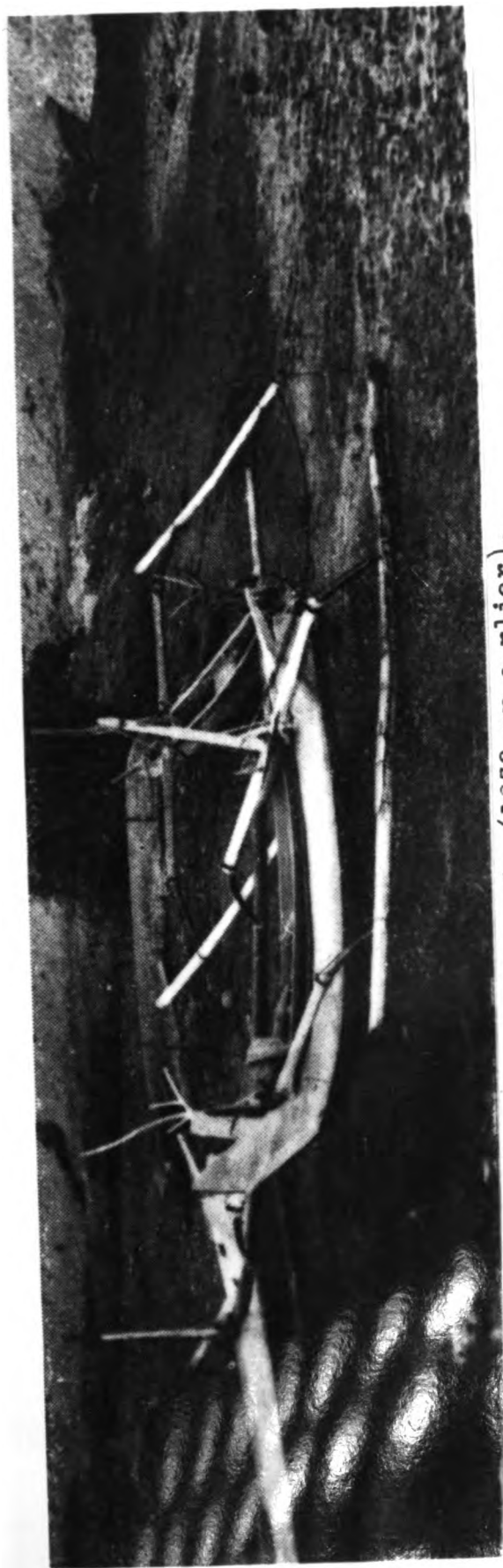
OSS R 734290



18. Model of "Sampun-Jaringan" from Pasuruan. (From Noteboom, 1932).
OSS R 734287



19. Sampan from Bondowoso. (1932 or earlier).
OSS R 734288



20. "Prang-Julung" from Banjuwangi. (1932 or earlier).

OSS R 734298



"hu-Julung" from Banjuwangi. (1932 or earlier).

OSS R 734299



22. Native craft of Banjuwangi. (1940).

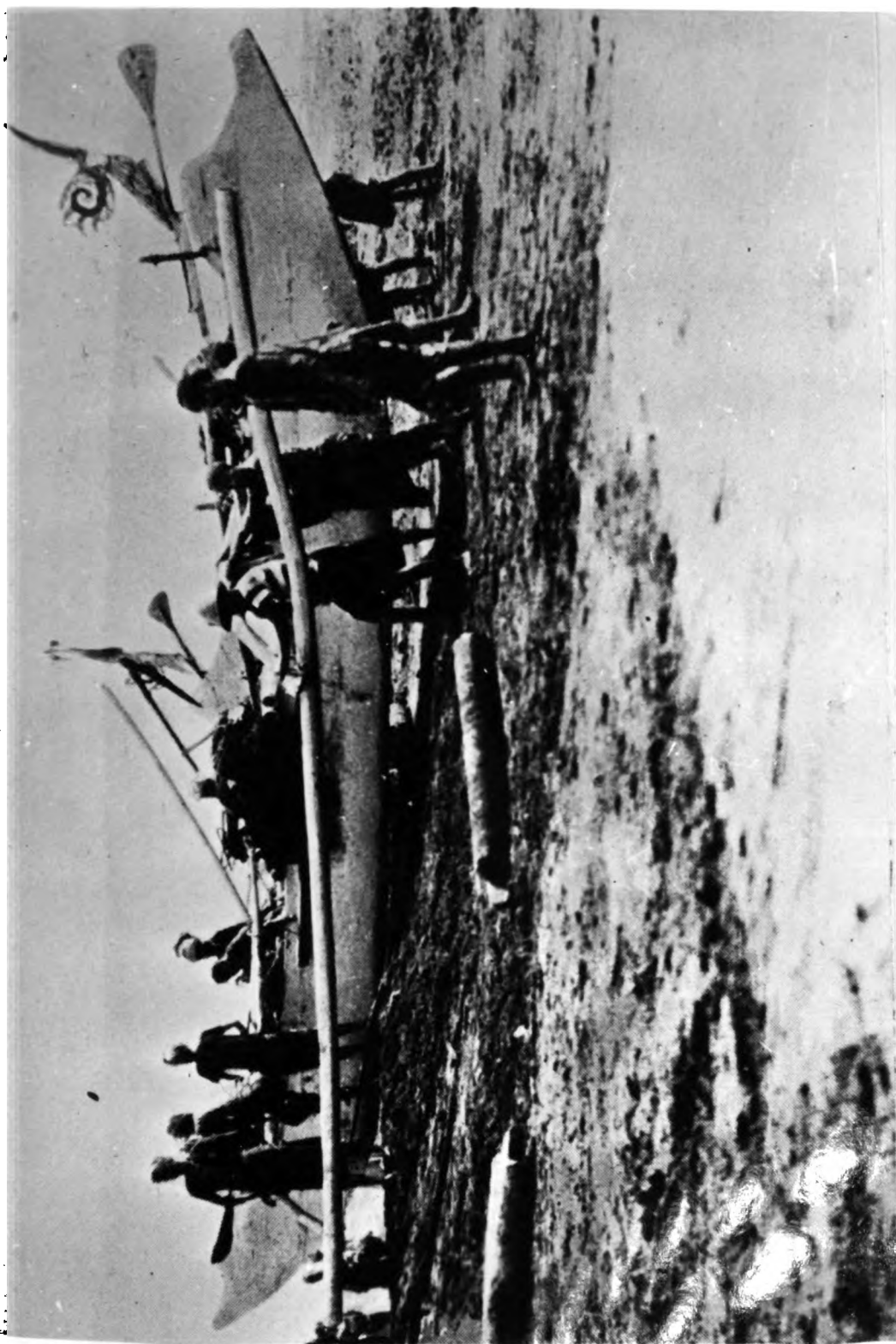
OSS R 32315



23. Javanese Prahni in the Kali Baroe River, Banjarnangli.

OSS R 37134

2



24. Outrigger canoe from Djember. (1932 or earlier).

OSS R 734302

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Research and Analysis Branch

R & A No. 2327

(Supplement to Part I)

NATIVE CRAFT IN SOUTH EAST ASIA WATERS

(Java, Madoera, and adjacent Islands)

Description

Additional pictures and text
of native craft found in Java,
Madoera, and adjacent Islands.

3 November 1944

RESTRICTED

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Kolek, Kolik1

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OSS R 734283
3. Model of a prahu with "Hermaphroditie" outrigger.
Java. 1932. OSS R 734275

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INDONESIA

Local Name of Craft:

"Kolek."

"Kolik."

Type and Use:

Generic name used in the East Indies and Malaya to denote various types of small craft employed generally for sea fishing and transportation which vary in size, hull-form, rig, build, etc. Nearly all of them are plank-built. The smallest can only carry one man and are propelled by a double bladed paddly. The largest ten or more.

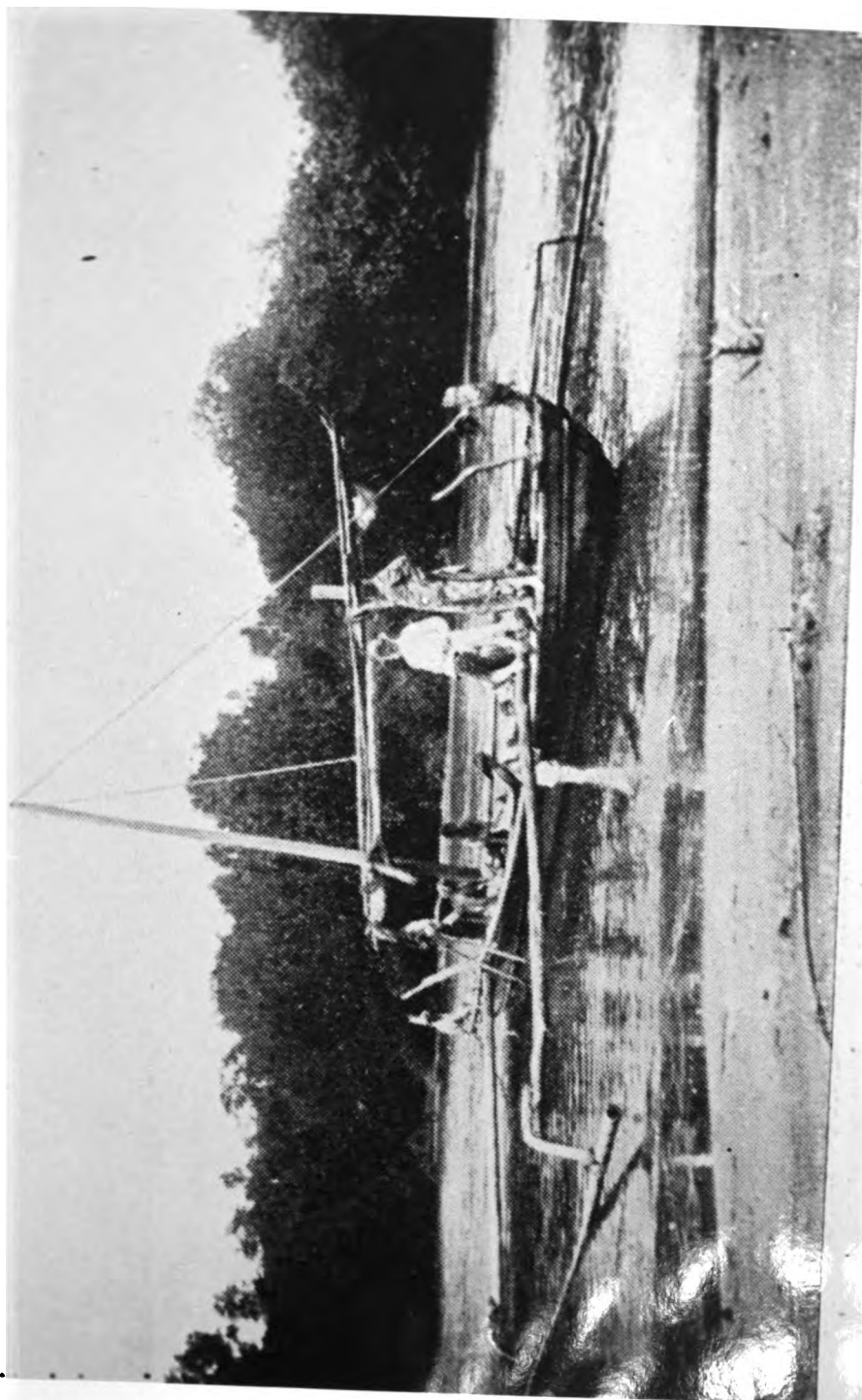
"Kolek Pukat." Java (Bantam)

"Kolek Pantjing." Java (Batavia)

"Kolek Sero." Java (Batavia)

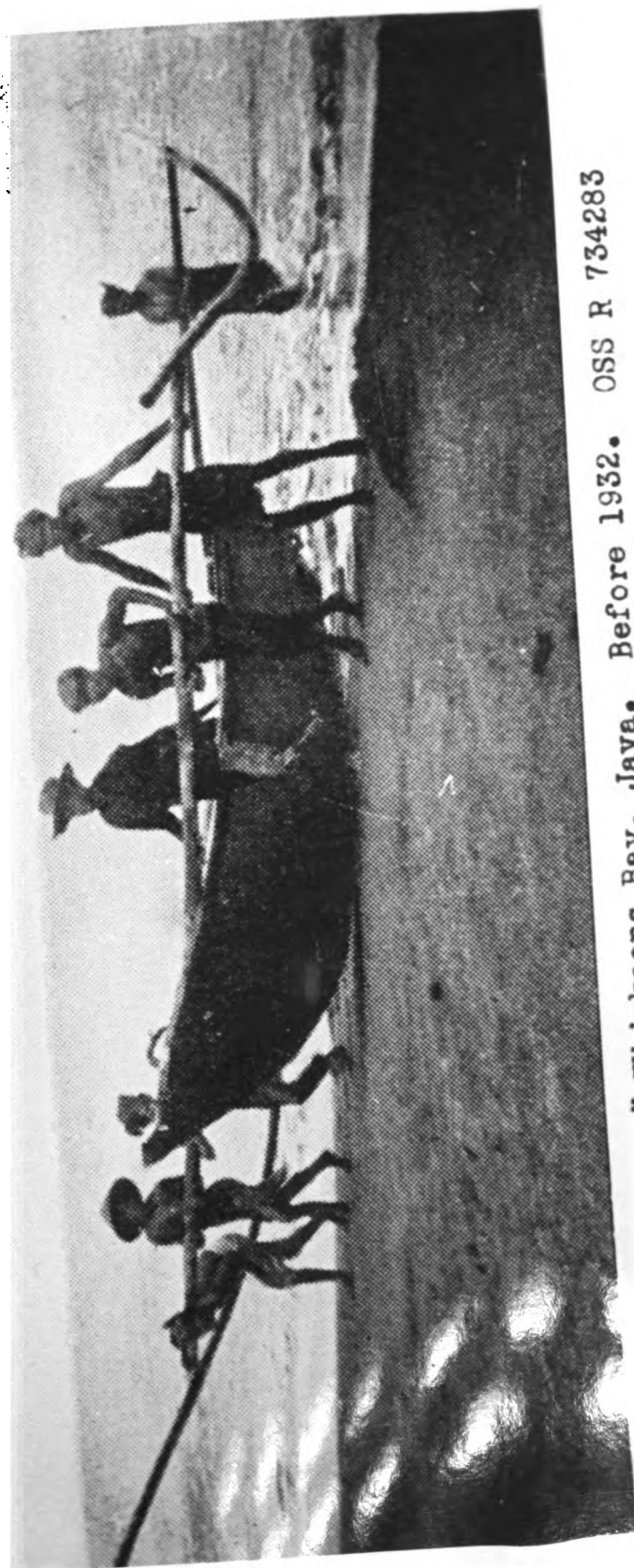
Notes:

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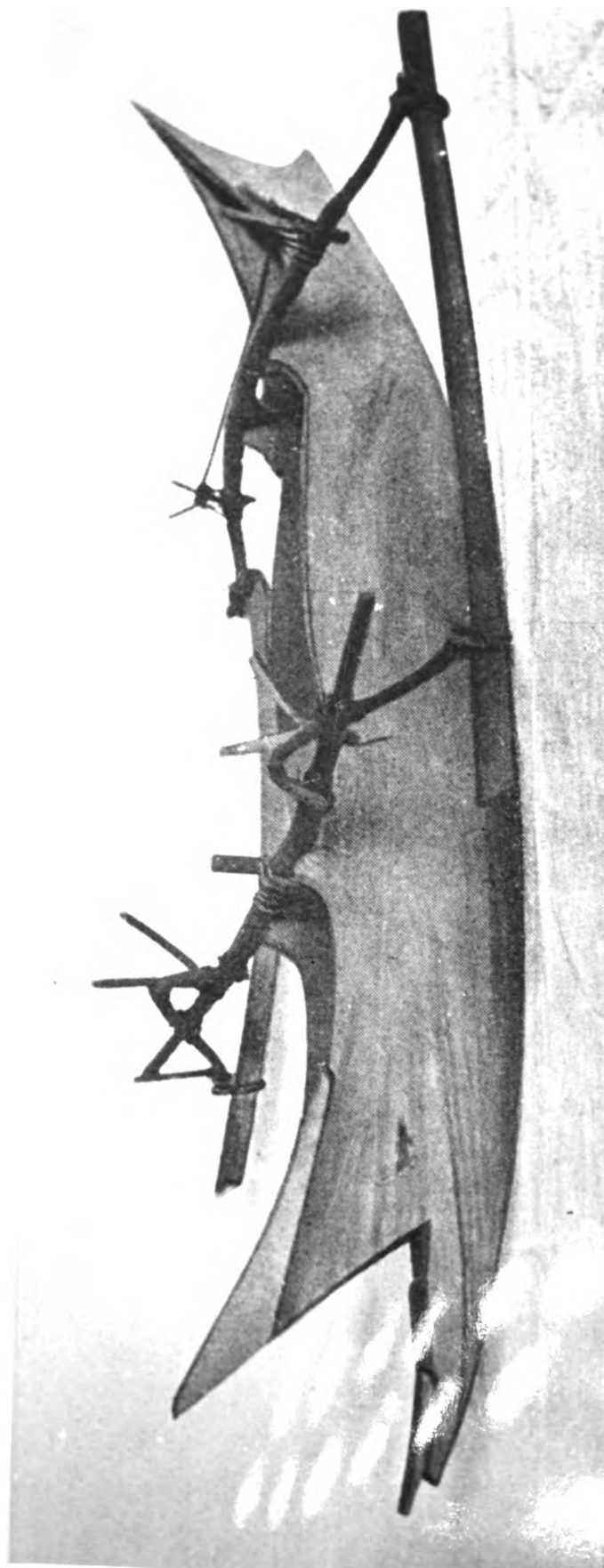
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73161



2 "Prahua Nguseup," Wijnkooops Bay, Java. Before 1932. OSS R 734283

731612



3. Side of a "Prahu" with "Hermaphrodite" outrigger. 1932. OSS R 734275

73161



AREA 19 NEI-BAWEAN I. BEF. 1920 S 5.47 - E 112.40
CANOE WITH DOUBLE OUTRIGGER OFF COAST OF ISLAND BTWN. NEI-BORNEO AND JAVA. OSS R 770780

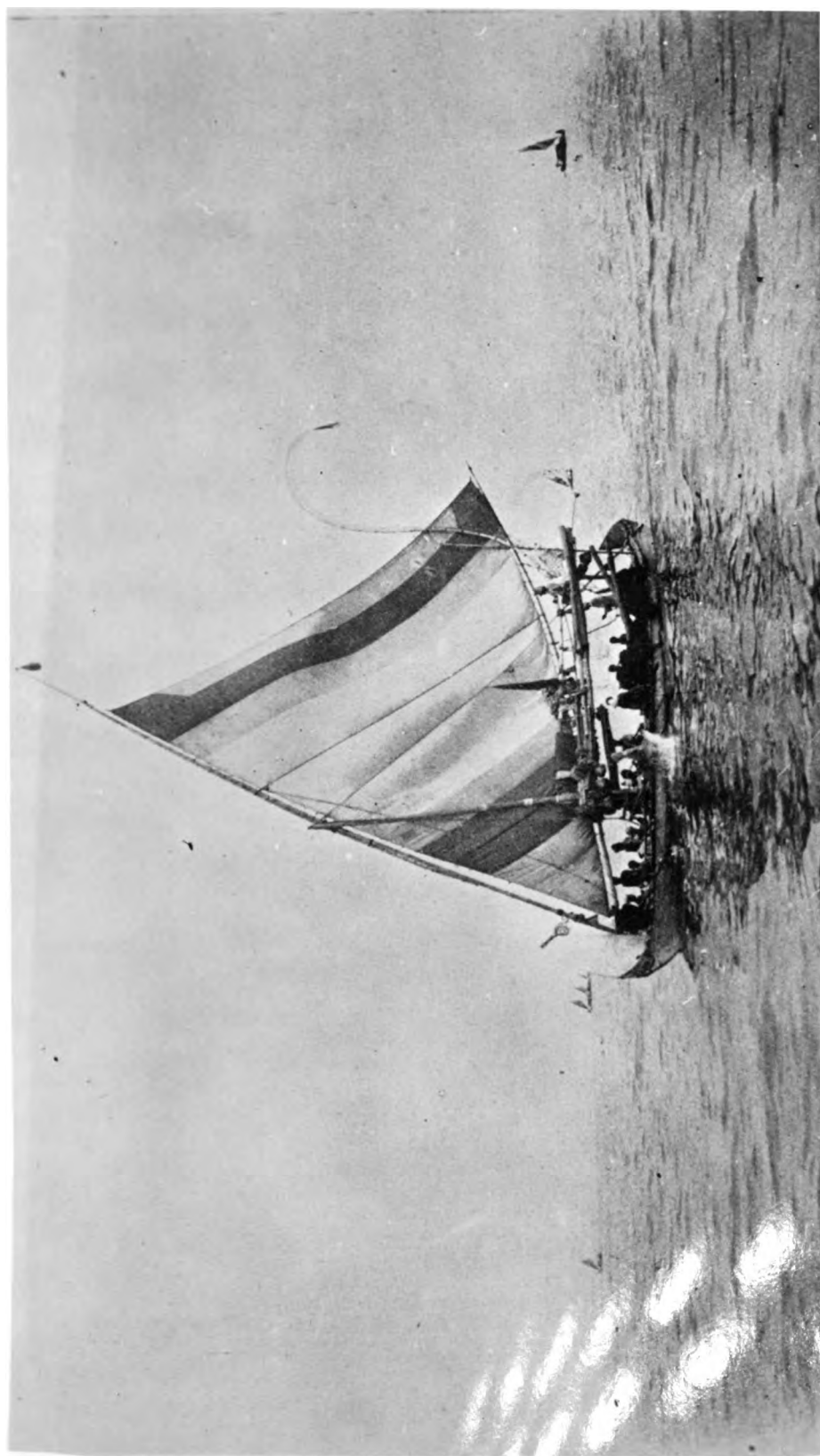


Fig.

19

NEI-JAVA EAST JAVA
MADOERESE FISHING PRAHU.

MADOERA

PUB. MAY 1923

APP. S 7.05 - E 113.25

OSS R 774154

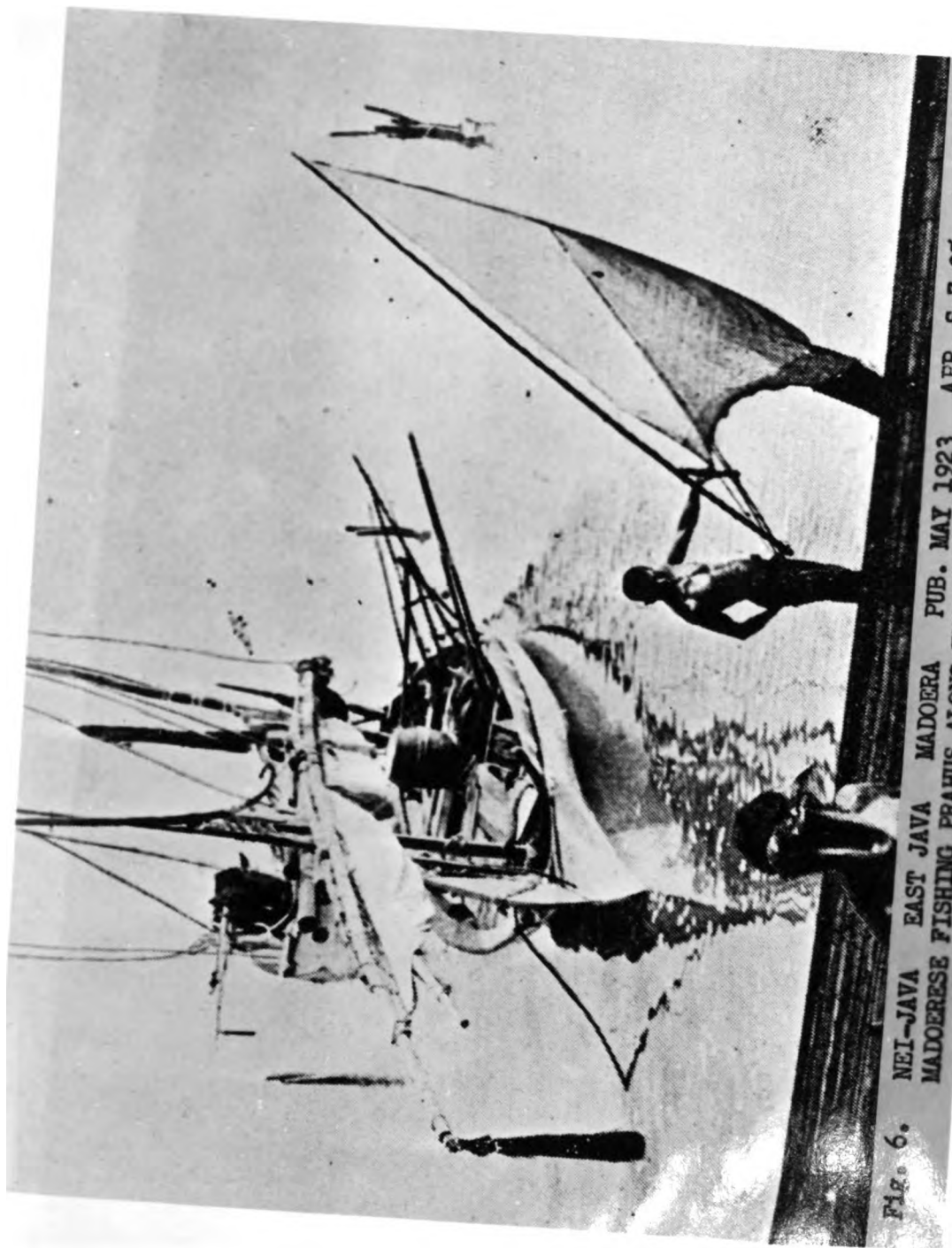


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MADOERESE FISHING FRAHUS ALONG THE BEACH. OSS R 774157

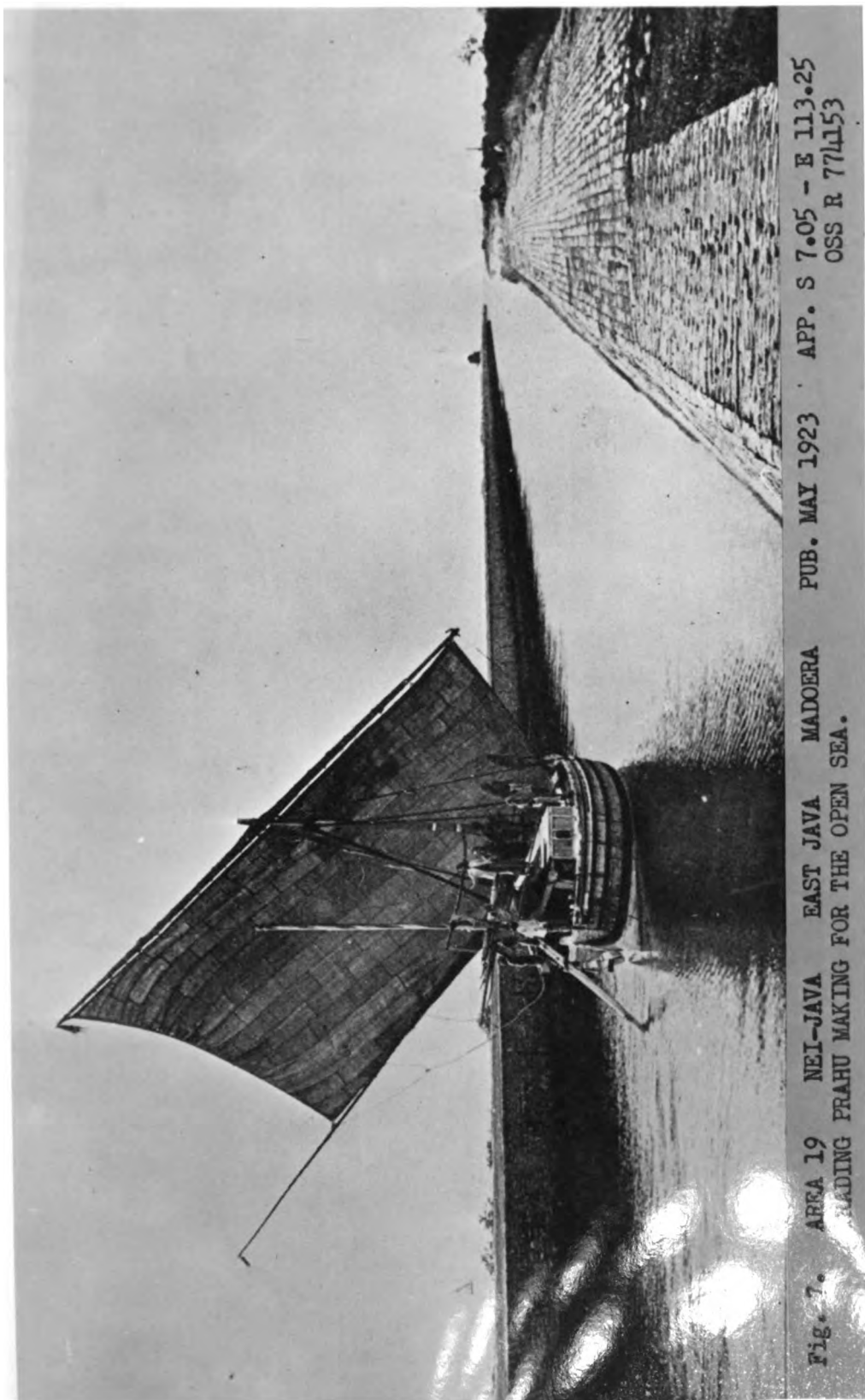


Fig. 7. AREA 19 NEI-JAVA EAST JAVA MADOERA PUB. MAY 1923 APP. S 7.05 - E 113.25
LOADING PRAHU MAKING FOR THE OPEN SEA. OSS R 774153



NET-JAVA EAST JAVA MADOERA PUB. MAY 1923 APP. S 7.05 - E 113.25
MADOERESE FISHING BOAT. OSS R 774156



Fig. 9. AREA 19 NEI-JAVA EAST JAVA MADOERA PUB. 1923
 APP. S 7.05 - E 113.25. TRADING PORTS WITH CARVED
 STERN. OSS R 774152

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OFFICE OF STRATEGIC SERVICES

Research and Analysis Branch

R & A No. 2327



NATIVE CRAFT IN SOUTH EAST ASIA WATERS

Part II

(Sumatra, Malaya, and Adjacent Islands)

Description

A study showing the distribution
of small boats in the waters of
Sumatra, Malaya, and adjacent islands.

22 September 1944

Copy No. _____

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Supplement to Part II (with Figures 1-11)

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Photographic Supplement

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- (3) Model of a PRAHU TINDA or PENTJALANG from Palembang. (On map but not described in text. From Nootboom, 1932).
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- (11) Freight barges off harbor at Georgetown, Penang Island, Malaya.
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(16) Native Craft on the Dindings River at Lumut,
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(17) Sampans and Lighters at Malacca, Malaya.

NOTES

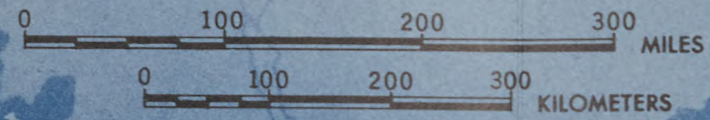
Part II of Native Craft in South East Asia
Waters describes the small boats of Sumatra and the
Malay Peninsula. The Anambas Islands, northeastward
of Singapore and between Malaya and Borneo, are
mentioned.

As in Part I, "Java and Adjacent Islands,"
the numbers on the map correspond with those to the
left of the craft name in the text. Pictures and plans
have been included wherever possible.

A photographic supplement is included in Part
II. If identification of any of the pictures is completed,
they should be added to the text.

NATIVE BOATS OF SUMATRA, MALAYA, AND ADJACENT ISLANDS

NUMBERS CORRESPOND TO THOSE IN TEXT.



RELIABILITY OF DATA

DATA	QUAN.	QUAL.	LOC.
BOATS	GRI	--	OA

Coverage of Data

C - Complete
I - Incomplete

Location of Data

A - Accurate

NE - Not Entirely Accurate

OA - Only Approx. Accurate

Quantitative & Qualitative Data

R - Reliable

GR - Generally Reliable

U - Unreliable

QUANTITATIVE DATA The letters R, GR, and U are an estimate of the reliability of the map's quantitative data, the data which are measurable, including economic or population statistics, hypsometric data, the width of roads, gauges of railroads, etc.

COVERAGE The letters C and I in combination with R, GR, or U are an estimate of the degree of completeness of quantitative and qualitative data.

LOCATIONAL DATA The letters A, NE, and OA are estimates of the plotted accuracy of data within the limits of scale and width of line.

R.A. OSS

SUMATRA (WEST COAST)

Island of Enggano

Local Name of Craft:

- (1) "Eloa."
"Eloha."
(1) "Eapoie."

Type and Use:

A double outrigger dugout canoe used for fishing by the natives of Enggano Island.

Constructional and other Features:

The bow of the canoe has sculptural ornaments representing either a human head or an animal. The cross pieces or thwarts are also elaborately carved.

Dimensions:

Length ranges from 16 to 65 feet.

References:

Nooteboom, C. - De Boomstamkano in Indonesie.-
Leiden, 1932.

Notes:

Compare Figures 4 and 5 in Supplement to Part II.

General Description

Local Name of Craft:

"Jukung."

"Dyukun."

"Jungskung."

Type and Use:

A generic term used to denote various types of native craft of the Malay Archipelago in which the hull consists either of a simple dugout or of a dugout base with sides raised by planks. The craft which do not have raised sides are generally used for transportation or fishing in sheltered waters or, in some cases, as tenders to the larger sea going fishing boats when setting or hauling in their nets. When working at sea the smaller "Jukung" are provided with single or double outriggers. The larger types of "Jukung" are employed in the offshore fisheries or also for the conveyance of goods along the coast. The word "Jukung" is usually followed by a descriptive term which indicates a particular form of hull or the usage to which the boat is put. When used alone, as for instance on the East and South coasts of Java, the word "Jukung" denotes the smallest type of one-man or two-man dugout.

Notes:

SUMATRA (West Coast)

District of Benkulen

Local Name of Craft: (2) "Jukung-Kawil."

Type and Use:

A double outrigger sailing canoe used in the strand fisheries of Benkulen and Lampong districts.

Constructional and other Features:

A dugout canoe with planked washstrake and quarter rudder.

Rig:

One mast with spritsail.

Dimensions:

Length 12.2 feet Breadth 2.1 feet Depth 2.3 feet

References:

Nieuwenkamp.- Nederlandsch Indie Oud en Nieuw.-

Vol. II.- 1926-27.

Notes:

SULAWA (West Coast)

District of Benkulon

Local Name of Craft: (3) "Irahu-Kempang."

Type and Use:

A dugout canoe from the northern part of the Benkulon District used for transportation and capable of making comparatively long journeys by sea.

Constructional and other Features:

The hull is formed of a dugout base with wooden washstrake. The ends are worked into a nicely shaped flare and are fitted separately from the main body. The underside of the washstrake fits inside the hull and is flush with the outside shell. The ends of the craft are docked over for a short length. It is steered by a center line rudder, the head of which goes through a projection left on the stern piece for this purpose. There are five thwarts.

Rig:

One mast.

Dimensions:

Length 21.3 feet

References:

Nooteboom, C.- De Boomschuiten in Indonesië.- Leiden, 1932.

Notes:

See Figure 9 of Supplement to Part II.

SUMATRA (West Coast)

Montawi Islands (Sipura)

Local Name of Craft: (4) "Abak."

Type and Use:

A dugout canoe of the Jukung type with double outriggers used for fishing and transportation. Paddles and sails are used for propulsion.

Constructional and other Features:

In the smaller craft of this type the hull is just a dugout with flat bottom and pointed upcurved ends. The larger boats have their sides raised by wooden washstrakes. A palm leaf roofing extends over two-thirds of the length. In the larger canoes the rudder head passes through an opening bored in the shell of the boat.

Rig:

The larger craft are rigged with one or two masts and square shaped sails made of palm leaves.

Dimensions:

Length 19.4 feet Breadth 1.4 feet Depth 0.8 feet

References:

Pleytel, C.L.- Die Montawei Inseln.- Berlin, 1901.
-- Encyclopaedie van Nederlandsch Indie.- Leiden, 1927.

Notes:



"Ahak". Ulipoera Island, Westwi Islands

J R 738763

SUMATRA (West Coast)

Nias and Mentawi Islands

Local Name of Craft: (5) "Kalaba."
"Kalamba."
(5) "Latjo-nt."

Type and Use:

Double outrigger dugout canoe used for fishing and transportation between the Islands.

Constructional and other Features:

Dugout basis with sides raised by a plank washstrake.
Some craft have a roofing made of palm leaves.

Rig:

One mast with palm leaf square shaped sail. The smaller units are not rigged.

Dimensions: Unknown.

The largest can carry 20 persons.

References:

Kruyt, A.C..- Een bezoek aan de Mentawai Eilanden, 1924.

Maass, A..- Primitiver Kunst der Mentawaiër Insulaner, 1906.

-- Encyclopaedic van Nederlandsch Indie.- Leiden, 1927.

Notes:

According to some writers the word "Kalamba" referred

"Kalaba" - "Kalamba" - "Latjo-At" - continued

also to a two-masted keel-built trading craft formerly employed between Nias and Sumatra Island. It had gradually disappeared when steamers were put into service. A number of these have been unrigged and used as barges or floating warehouses.

SUMATRA (West Coast)

Nias Island

Local Name of Craft: (6) "Tundraha."

Type and Use:

The word "Tundraha" is a generic term used on the island of Nias to denote native dugouts built locally. There are three varieties of this type: the smaller "Tundraha" is a simple dugout which can carry two or three persons and is used for crossing rivers or estuaries. The fishing "Tundraha" called "Tundraha-Gai" is somewhat larger and built of a dugout base with planked sides above which a washstrake made of "atap" leaves is superimposed to increase its seagoing qualities. The largest type is used for transportation of copra nuts from the various outposts along the coast to the nearest harbor where the produce is collected by coastal vessels.

Constructional and other Features:

The larger trading "Tundraha" has a dugout base with side planking about three feet high. The whole structure is reinforced by transverse framing and three longitudinals which act as stringers. Two cross

"Tundraha" - continued

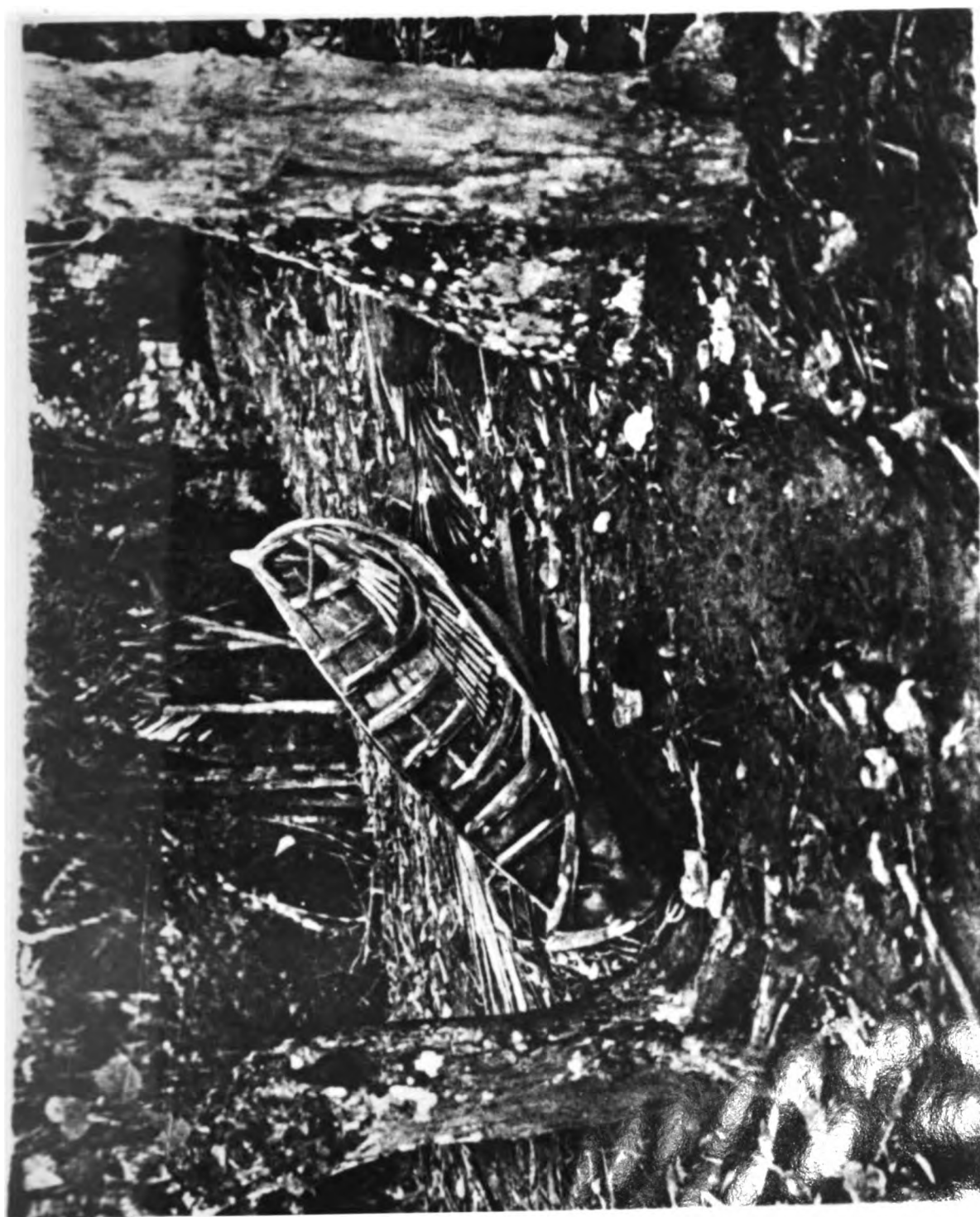
pieces or thwarts are fitted - one forward at about 1/4 length from the bow, in which the mast is stepped - another aft for the steersman. When under sail, a quarter rudder is used.

Dimensions:

References:

Schröder, E.E.W.G. - Nias.- Leiden, 1917.

Notes:



OSS R 738764

"Munurana-fai". Nias Island - after Schroder

SUMATRA

District of Achin

Local Name of Craft: (7) "Moudang-Ara."
(7) "Jalo-Moulaboh."

Type and Use:

A dugout canoe used for transportation on the West Coast of Achin and originating from the locality of Moulaboh, hence its name.

Constructional Features:

The hull is made of a dugout basis with planked sides.
Two quarter rudders are fitted for steering.

Rig:

Two masts with quadrilateral sails.

Dimensions and Capacity:

Capacity: 10 to 20 Koyan (20 to 40 tons).

References:

Kraemer, J. J.- Atjeh.- Leiden, 1922.

-- Encyclopaedie der Nedorlandsche Indie.- Leiden, 1927.

Notes:

SULATRA

District of Achin

Local Name of Craft:

(8) "Sampan Pukat."

"Lantiang Pukat."

Type and Use:

An open sail and row boat engaged in the fisheries of the East and West Coasts of Achin with a "Pukat" or seine net.

Constructional and other Features:

A planked hull made of Manga wood, with flat bottom and sharp stem and stern. Three thwarts are fitted in the fore part of the boat. The mast is stepped in the after thwart. There is a small railing about five feet long forward on each side of the boat above the gunwale to which rattan strops, used as rowlocks, are attached. At the after end next to the sternpost there is a horizontal plank which projects outboard on each side. A forked timber is stepped into this plank and serves as a crutch for the steering oar. Amidships the boat is kept clear for the stowage of the "Pukat" net.

Rig:

One portable mast with quadrilateral sail. Oars are

"Sampan Pukat" - "Lantiang Pukat" - continued.

mostly used for propulsion. The rowers face aft when pulling.

Dimensions: Of a "Sampan Pukat" from Meulaboh.

Length 28.3 feet Breadth 6 feet Depth 2.6 feet

References:

Paris, E. F.- Essai sur la Construction Navale des peuples Extra-Europeens.- Paris, 1896.

Jacobs, J.- Famille en Kampongloven op Groot-Atjeh.- Leiden, 1894.

Notes:

SUMATRA

District of Achin

Local Name of Craft:

(9) "Jalo-Kawe."

Type and Use:

A dugout canoe with sharp ends used for hook and line fishing. There are several varieties.

Constructional and other Features:

There are three cross pieces or thwarts. The middle one is used as mast thwart. It is steered with a quarter rudder fastened to the after cross piece.

Rig:

One quadrilateral sail with yard and boom.

Dimensions (average):

Length 21.3 feet Breadth 11.4 feet Depth 1.9 feet

References:

Nooteboom, C.- De boomstamkano in Indonesie,- Leiden, 1932.

Jacobs, J.- Familie en Kampong leven in Groot-Atjeh.-
Leiden, 1894.

Notes:

The "Jalo-Kelibat" or "Jalo-Klibouet" is of the same type as the "Jalo-Kawe" but smaller. It is not rigged and is propelled by means of double bladed paddles.

SUMATRA

District of Achin

Local Name of Craft: (10) "Sampan Besar."

Type and Use:

Open sailing craft used for transportation on the East and West Coasts of Achin.

Constructional and other Features:

The hull is double ended with straight raking stem and slightly rounded stern-post with quarter rudder. There is a shelter with thatched roof just abaft the mast.

Rig:

One mast and square sail with yard and boom. Short jibboom.

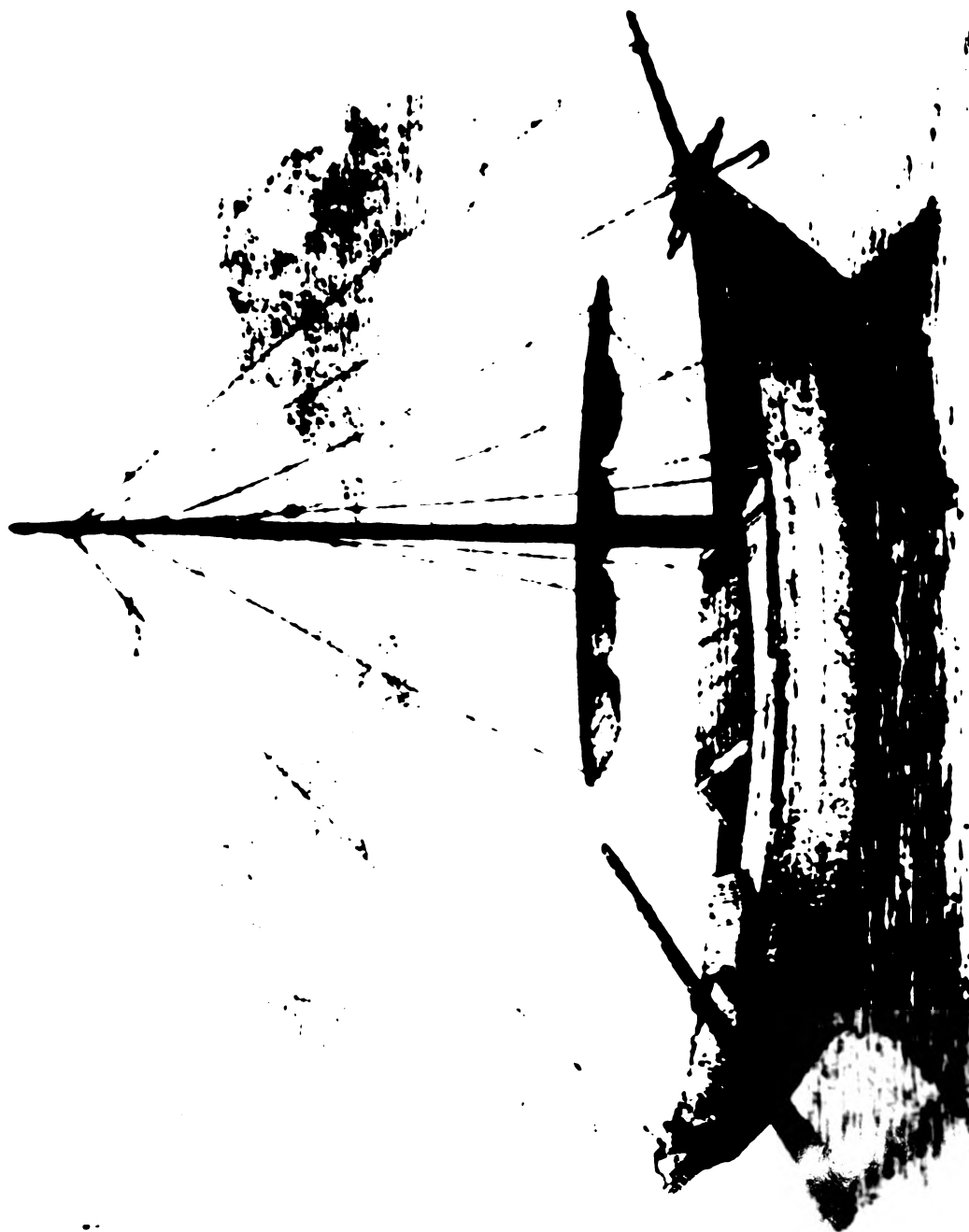
Dimensions and Capacity:

Carrying capacity 16 to 20 tons.

References:

Jacobs, J.- Familie en K mpongloven in Groot Atjeh.-
Leiden, 1894.

Notes:



"Sampun Besar". Sumatra - after Jacobs

OSS R 738765

SUMATRA (West Coast)

District of Achin

Island of Pulo Raja

Local Name of Craft: Unknown (Canoe from Pulo Raja)

Type and Use:

A sailing dugout used in the local fisheries on Pulo Raja.

Constructional and other Features:

Dugout basis with round cross-section and flattened ends.

The bottom is strengthened inside by transverse timbers. The sides are raised by a high washstrake made of palm leaves and held in place by fore and aft battens and cross pieces with pronounced camber. At bow and stern the washstrake abutts against an athwartship plank placed at a distance of about 4 feet from the end of the log. It is steered with a quarter rudder.

Rig:

One vertical mast and quadrilateral sail made of woven matting with yard and boom.

Dimensions (approximate):

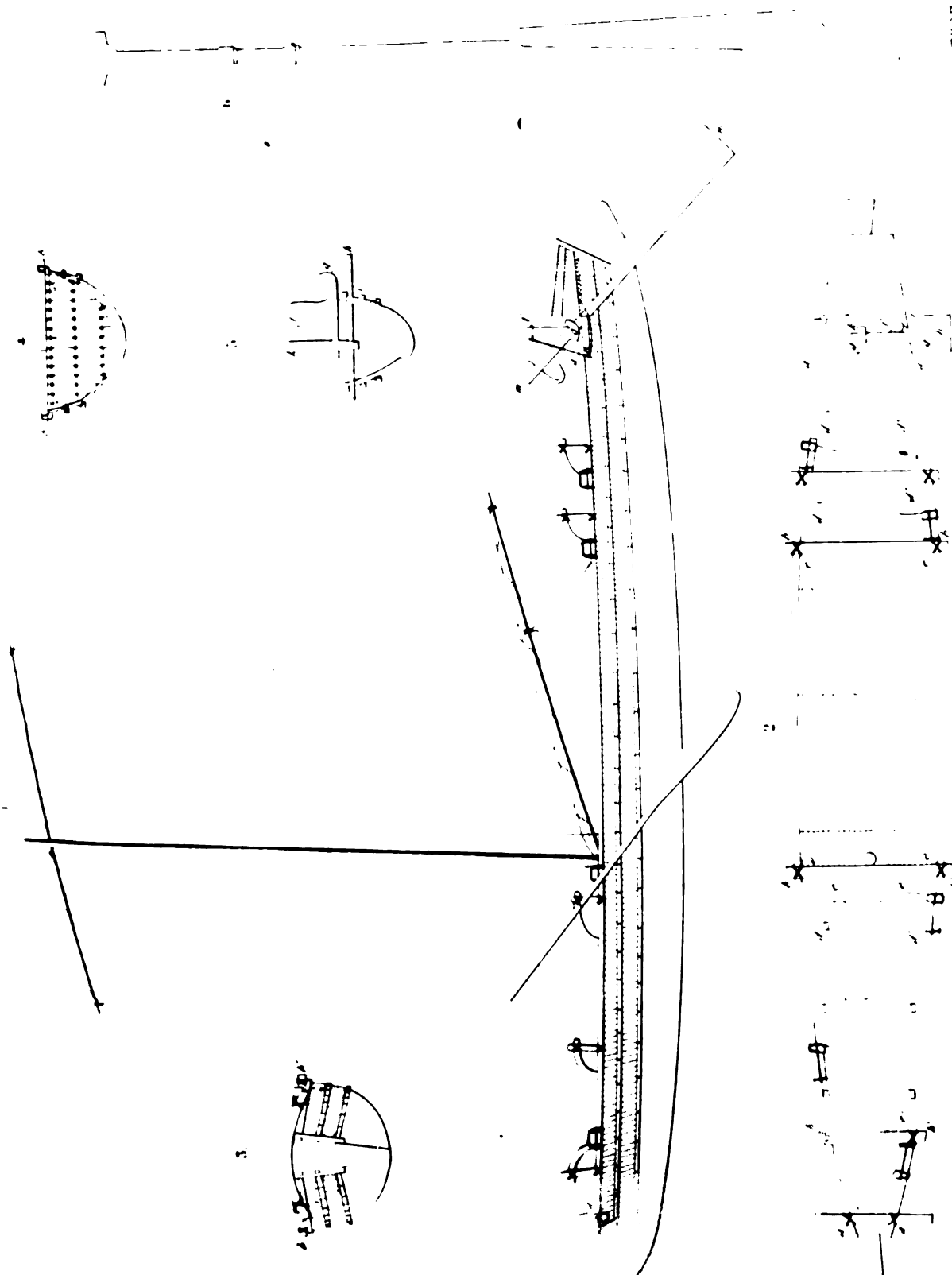
Length 28.1 feet Breadth 6.5 feet Depth 2.7 feet

References:

Paris, E.F.- Essai sur la Construction Navale des peuples Extra-Europeens.- Paris, 1896.

Notes:

C.S.F. 770723



of 6000 from Pulo-Paja Island. - after Paris

SUMATRA

District of Achin

Local Name of Craft:

(11) "Bido."

"Biduk."

Type and Use:

Open sailing boat with double outriggers used for transportation.

Constructional and other Features:

The hull is flat bottomed with raking stem and square stern. There is a small superstructure at the stern. Center line rudder. According to some writers there are at stem and stern projections of the keel, shaped like the head and tail of a fish and the hull is made of a dugout basis with plank washstrakes.

Rig:

One mast stepped forward and a long jibboom. Quadrilateral sail of matting. The jib is made of cotton.

Dimensions (average) and capacity:

Capacity 5 to 10 tons.

References:

Jacobs, J.- Famille en Kampongleven in Groot-Artjeh.- Leiden, 1894.

-- Encyclopaedie van Nederlandsch Indie.- Leiden, 1927.

Notes:

The "Biduk-Gadang" is a small trading vessel from the lake of Singkarak near Padang.

SUMATRA

District of Achin

Local Name of Craft: (14) "Klewe."

Type and Use:

Dugout canoe from Achin with outriggers used for transportation.

Constructional and other Features:

The sides are raised by planked washstrakes. Double outriggers. The bow and stern are fork shaped (bifid).

Rig:

One mast with quadrilateral sail made of palm leaves. A jib-boom and headsail are occasionally used. The latter is always made of cotton.

Dimensions and other particulars:

The capacity of these craft ranges from $2\frac{1}{2}$ to 5 Koyan (5 to 10 tons).

References:

Nootboom, C.- De Boonstankene in Indonesie.- Leiden, 1932.

-- Encyclopaedic van Nederlandsch Indie.

Kroemer, J.J.- Atjeh.- Leiden, 1922.

Notes:

Other craft of this region which have the same build and rig are called "Kruweh" and "Leulayan". There was formerly a similar craft called "Biduk" used by the natives of the shores of the Sund Strait as bumboat for the sailing vessels anchored near by. They were usually called "Kadraacier" by Dutch seamen.

SUMATRA

District of Achin

Local Name of Craft:

(15) "Tob."

"Toep."

"Prao Toep."

Type and Use:

The largest Malay trading craft with a capacity up to 200 tons. It is believed to be of Siamese origin and was formerly engaged in navigation between Sumatra (Achin) Borneo, the Celebes and the Rhio Archipelago. The type is probably extinct now.

Constructional and other Features:

The hull is keel built and decked fore and aft square stern with ornamental carvings on the transom. Aft there is a sunken cabin which rises slightly above deck and is covered with a reef inclined longitudinally. In the craft from South Celebes the cabin was entirely below deck. When light goods were carried the upperworks at sides were raised with mats. There was a cargo hatch abaft each mast. Some boats had a center line rudder of Western design, others were steered with two quarter rudders.

Rig:

Two or three masts according to locality with trapezoidal sails made of matting on the fore and main masts and triangular sail on the mizzen. The "Prao Toep" from South

"Tab" - "Teep" - "Prac Teep" - continued.

Celebes had two masts only. That from Surabaya has taller spars than the other craft.

Dimensions:

Length 49 to 59 feet Breadth 10 to 13 feet

Depth 10 to 11.5 feet

References:

Paris, E. F. - Essai sur la Construction Navale des peuples

Extra-Europeens. - Paris, 1896.

-- Encyclopaedia van Nederlandsch Indie. - Leiden, 1927.

Kreemer, J. J. - Atjeh. - Leiden, 1922.

Notes:

SUMATRA

District of Achin

Local Name of Craft: (17) "Jalo-Kusangka."

Type and Use:

A dugout canoe used for fishing and transportation on sheltered waters and rivers.

Constructional and other Features:

The fore end is very sharp and has a slight sheer. The after end is less sharp but more sheered up. There are four thwarts or cross pieces; the middle one is used for stepping the mast. The stern thwart reaches outboard and is fitted with a bollard for holding the quarter rudder.

Rig:

One mast which carries a quadrilateral sail with yard and boom.

Dimensions:

Length 11 to 18 feet Breadth about 2.9 feet

References:

Jacobs, J. - Familie en Kampong leven in Groot Atjeh.
- Leiden, 1894.

Notes:

SUMATRA

District of Achin

Local Name of Craft: (20) "Kulo."

Type and Use:

A sailing vessel from Northern Sumatra with a capacity of 20 to 40 tons employed in the small coasting trade.

Constructional and other Features:

The hull is keel-built with sharp bow, transom stern. It is subdivided internally by three transverse bulkheads. The ends are decked. The fore deck extends from the stem to foremast. Aft there is a lock house with palm leaf roof. The planking is in broad strakes. The sheer strake has ornaments and carvings at bow and stern. Two quarter rudders are used for steering.

Rig:

One or two masts with boomel lugsails.

Notes:

RAY OF BENGAL

Nicobar Islands

Local Name of Craft:

(12) "Ap."

(12) "Due."

Type and Use:

The "Ap" is a single outrigger dugout canoe from Kar Nicobar used for transportation and fishing. In the Central and Southern groups dialect it is called "Due."

Constructional and other Features:

The most striking feature of this type is the bow which is carried high in a graceful curve which terminates in an extremely long drawn out ornament with a stiff flag at the apex. The stern is protruding considerably in an acuminate projection inclined slightly upwards. There are never more than two outrigger beams connecting the float with the hull. The float is about three-quarters the length of the canoe and is sharp at either end. Each beam is connected to the float by means of three pairs of divergent stanchions.

Rig:

These canoes are rigged according to size with one to four short bamboo masts. Each mast is supported by four rattan shrouds and carries sort of a settee sail made of cotton or pandanus leaves with short luff of about 12

"Ap." - "Duo." continued.

inches. The masts are not stepped on the bottom of the hull, but on a cross piece fitted for this purpose. In the large three masted craft the foremast is placed in the bows and well forward of the fore outrigger boom. The main and mizzen masts are stepped between the two booms; the mizzen just forward of the after boom. All masts are vertical; the main being a little taller than the others. The yards are longer than masts. Paddles: The paddles are about four to six feet long. They are very light and thin; made of hard redwood with lancet shaped blades and handles flattened at the top.

Dimensions (large type):

Length 42 feet Breadth 3 feet Depth 3 feet

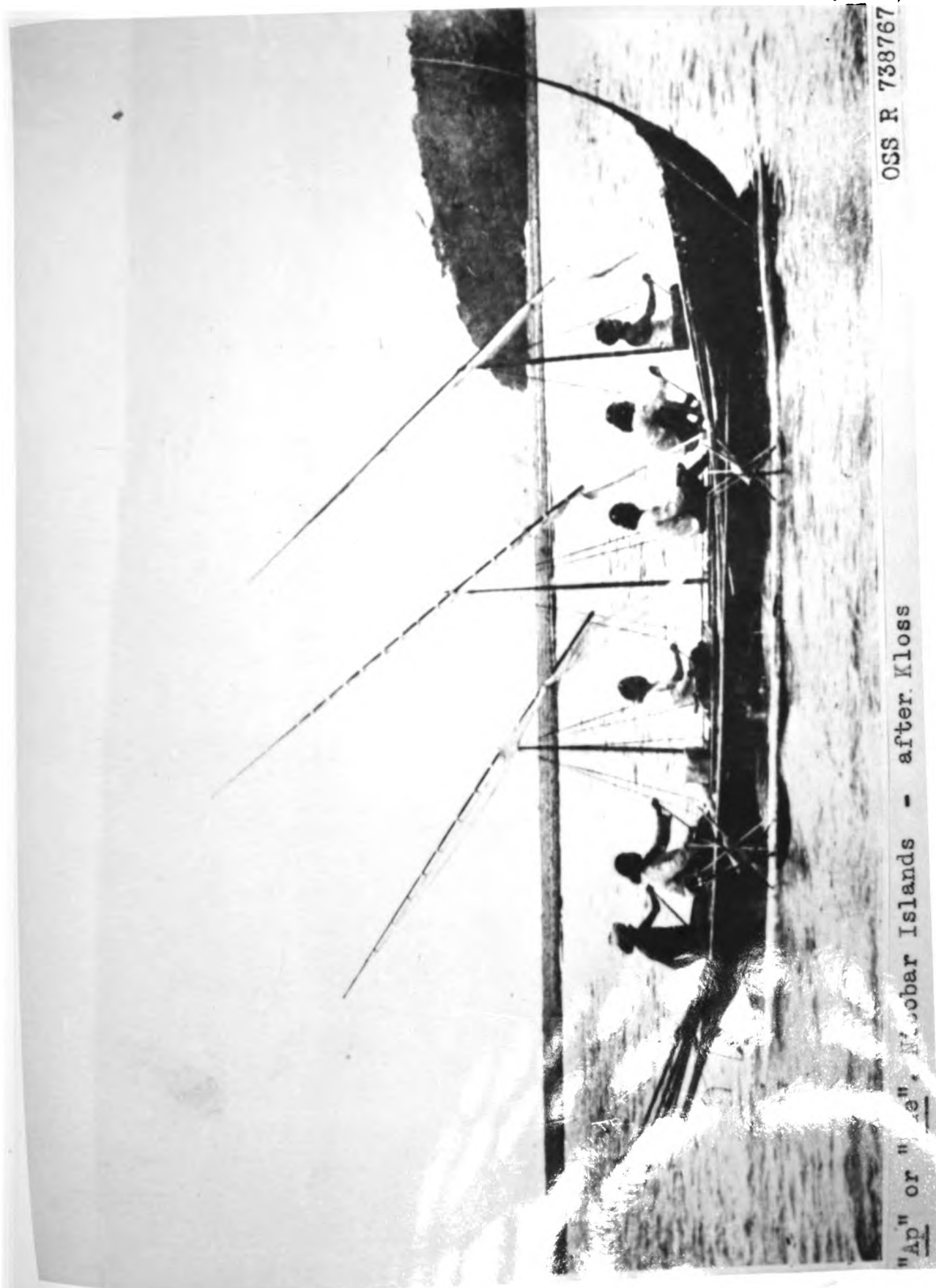
The dimensions vary in general from 8 to 50 feet length

References:

Hornell, J. - Indian boat designs. - Royal Asiatic Society of Bengal. - Memoirs, Vol. VII - 1923.

Kloss, C. B. - In the Andamans and Nicobars. - London, 1903.

Notes:



"Ap" or "Ae", Nicobar Islands - after Kloss

OSS R 738767

BAY OF BENGAL

Andaman Islands

Local Name of Craft: (13) "Loko-Da."
(13) "Charigma."

Type and Use:

A large dugout canoe without outrigger from the South Andaman used only for transportation. It is called "Charigma" in Great Andaman Island.

Constructional and other Features:

These craft, hollowed out of light trees (Sterculiaceae) are more rounded trunks of clumsy construction. They have considerable overhang at both ends.

Rig: None

Propulsion by paddles with short and broad blades.

Dimensions and other particulars:

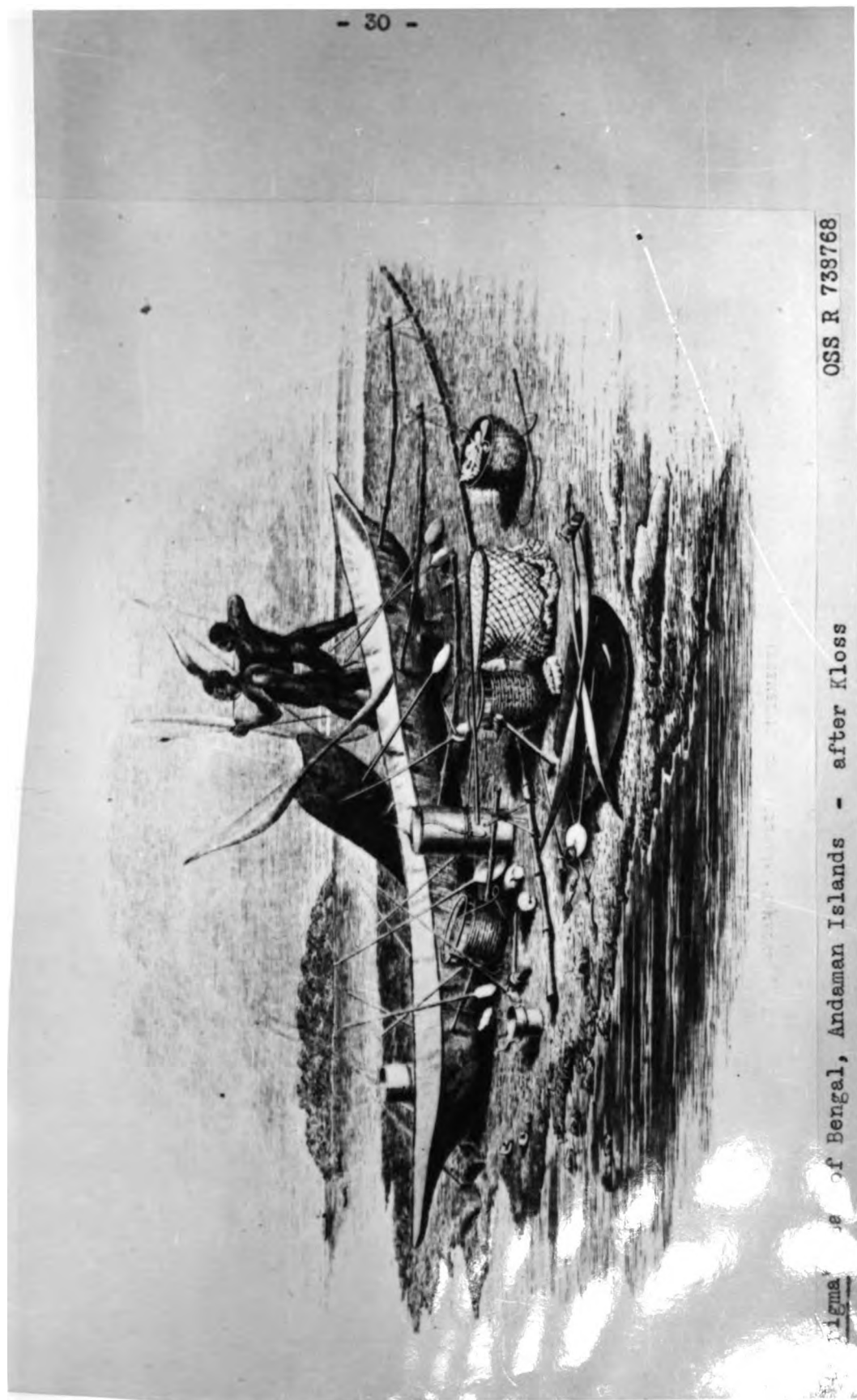
Some of these canoes are large enough to carry 30 persons.

References:

Lane Fox, A. - Collection of Andamanese objects. - Royal Anthropological Institution Proceedings, Vol. 7, 1877.

Brown, A. H. - The Andaman Islanders. - London, 1922.

Notes:



OSS R 739768

Pigmae of Bengal, Andaman Islands - after Kloss

BAY OF BENGAL

Andaman Islands

Local Name of Craft:

"Gilyanga."

Type and Use:

A single outrigger dugout canoe from little Andaman Islands employed for spearing large fishes and turtles.

Constructional and other Features:

The dugout hull is built with rounded ends and no sheer. The bow is prolonged horizontally to form an overhanging shelf or platform about 4 feet long which gives a good footing to the harpooner. At the stern a similar but much reduced projection serves as a seat for the helmsman. Thickness of sides 1 1/4 inches. The float of the outrigger is connected with the hull by multiple booms varying in number according to the size of the dugout, but never less than three.

Rig: None.

Propulsion by paddles and poles.

Dimensions:

Length 28 feet Breadth 3 feet Depth 3 foot

References:

Kloss, C.B. - In the Andamans and Nicobars. - London, 1903.

Hornell, J. - Indian boat design. - Royal Asiatic Society

"Gilyanga." continued.

of Bengal. - Memoirs, Vol. VII No. 3, Calcutta, 1920.

Jager, F. - Anlamanschen. - Zeitschrift fur Ethnologie.

- Vol. IX - 1877.

Notes:

The buoyancy of these boats is said to be remarkable. They float lightly on the top of the waves and, unless they have received some injury, it is considered almost impossible to sink them.



"Gilyanga". Bay of Bengal, Andaman Islands - after Jagor
OSS R 738769

SUMATRA (East Coast)

District of Palembang

Local Name of Craft: (30) "Bidar."

Type and Use:

A dugout canoe used for ferrying persons and goods from ship to shore on estuaries and rivers. It is propelled by short paddles with square ended blades.

Constructional and other Features:

The hull has a flat bottom, little sheer, sharp low bow with long overhang, square stern and often covered aft with a reef made of palm leaves. The sides are raised by a single washstrake 4 to 6 inches high.

Dimensions (average):

Length 12 to 25 feet Breadth 4 to 6 feet

The largest have a length of 40 feet

References:

Nooteboom, C. - De Boomstamkano in Indonesie. - Leiden, 1932.

-- Encyclopaedie van Nederlandsch Indie. - Leiden, 1927.

Notes:

This type has nowadays been replaced by steam and motor launches and is probably extinct.

SUMATRA (East Coast)

District of Palembang

Local Name of Craft:

(31) "Tambangan."

"Jukung Tambangan."

Type and Use:

A small dugout canoe used in the sheltered waters of the Palembang District for ferrying people from ship to shore or across estuaries, also as tender for larger craft. There are several varieties of this type. When carrying passengers a palm leaf roofing is provided amidships.

Constructional and other Features:

The ends of the canoe are flattened out in swallow tail shape. The purpose of this is to facilitate the embarkation or disembarkation of passengers. Bottom boards made of bamboo splits are fitted over cross pieces usually five in number.

Rig:

Some of the "Tambangan" are rigged with a small mast raking forward and a triangular sail set with apex downward. The smaller craft used in the harbor of Palembang are propelled by one man who sits aft with a single bladed paddle.

Dimensions (Larger type):

Length 24 feet Breadth 5 feet

"Tambangan." - "Jukung Tambangan." continued

References:

--Encyclopaedie van Nederlandsch Indie.--

Leiden, 1927.

Neuteboom, C. - De Boomstamkane in Indonesie.--

Leiden, 1932.

Notes:

SUMATRA (East Coast)

District of Palembang

Local Name of Craft: (32) "Prahu-Kajangan."

Type and Use:

A dugout canoe used for transportation on the rivers and in sheltered waters on the Coasts of Palembang and Lampung.

Constructional and other Features:

The hull consists of a dugout base raised by several strakes of planking at sides. It is covered amidships with a roofing made of palm leaves.

Dimensions:

The largest craft have an approximate length of 49 feet
breadth 9.8 feet

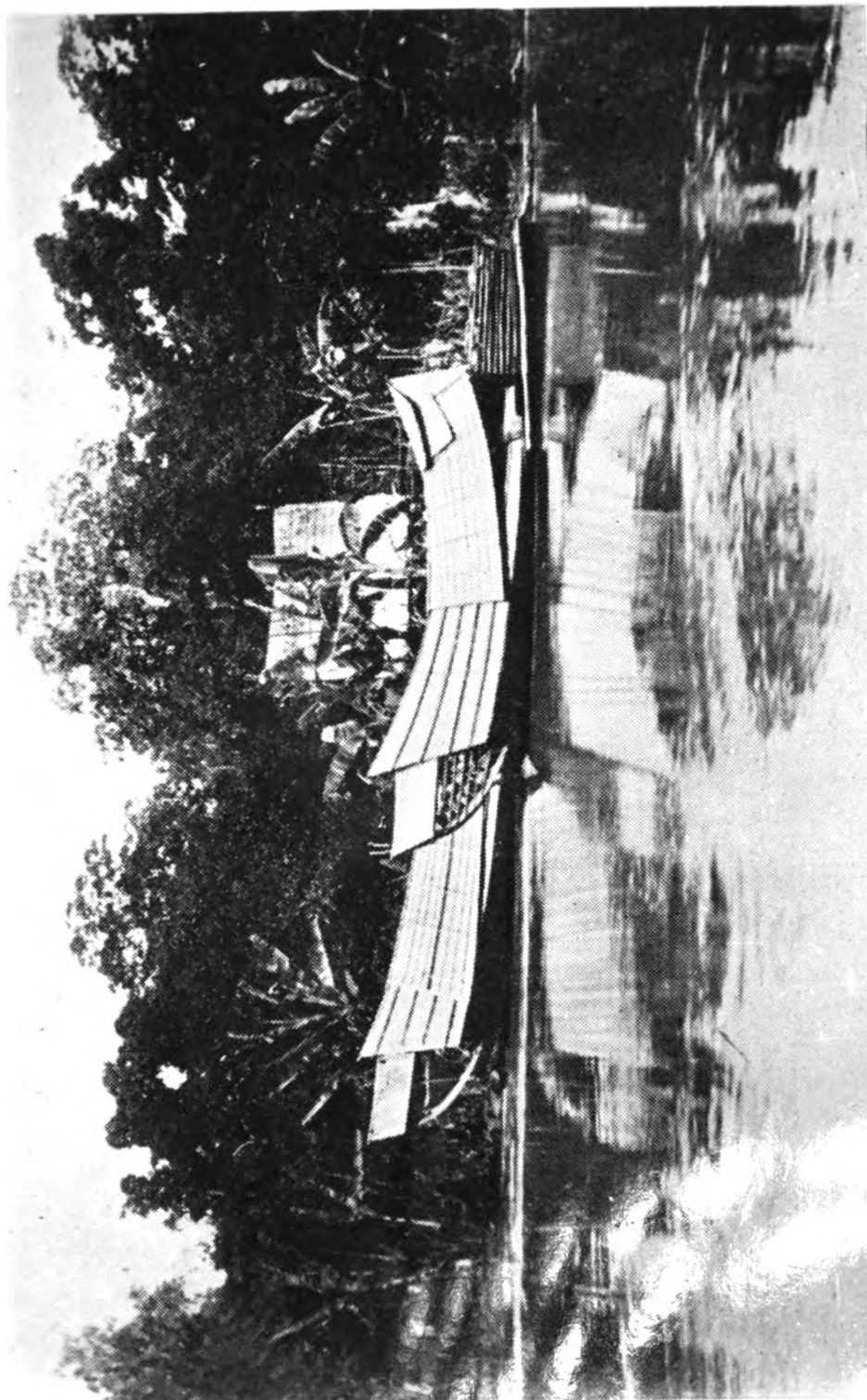
References:

Nooteboom, C. - De Boomstamkano in Indonesie.- Leiden, 1932.

--Encyclopaedie van Nederlandsch-Indie.- Leiden, 1927.

Notes:

Another variety of this type is found in Southern Sumatra (District of Lampung). It is a dugout without washstrake and has the ends cut off square. It is used on the rivers and estuaries of Lampung and is covered with a palm leaf roofing extending almost from bow to stern. A quarter ruddor is used for steering.



OSS R 734265

Rumah Kajangan. Palembang, Sumatra.

SUMATRA

Strait of Malacca

Local Name of Craft: (26) "Nalir."

Type and Use:

A shallow draft Malay fishing boat.

Constructional and other Features:

The hull is built of Kelidang wood with straight stem and stern-post, carvel planking. No deck.

Rig:

The rig consists of one mast and square sail made of screw pine leaf with yard and boom. The tack or fore end of the boom is made fast well forward and to windward of the mast. The luff of the sail is kept taut by a spar-bowline which fits in a cringle. Hoisting and furling is done by reeling around the main boom with the help of two cross pieces set at right angles and fitted to the fore end of the spar.

Dimensions:

Length 24 feet Breadth 6 feet Depth 3 feet, 3 inches.

Crew of 5.

References:

Smyth, H.W.- Boats and Boatbuilding of the Malay Peninsula. -
1906.

Notes:

RESTRICTED

RIOUW - LINGGA ARCHIPELAGO

Local Name of Craft:

(33) "Sampan Kotak."

"Kotak."

A plank-built open boat of Chinese origin with long and narrow transom bow, round bottom, and high stern, employed in the Riouw-Lingga Archipelago, East Coast of Sumatra and Acheen as a ferry for the transportation of persons and goods over short distances in sheltered waters. In the coastal waters of Indragiri and Siak these boats are used for shrimping. Their rig consists of one mast with Chinese lugsail.

Dimensions:

Length 26.5 Breadth 6.4 Depth 3.2 feet

Notes:

The "Kotak-Pengembar" is a boat of the same type with more beam and used for working large marine fish traps.

RESTRICTED

RIOUW-LINGGA ARCHIPELAGO

Local Name of Craft:

(34) "Sampan Panjang."

Type and Use:

A sailing craft from the Riouw Archipelago used for the transportation of persons and goods between the Islands and the East Coast of the Malay Peninsula.

Constructional and other Features:

The hull is keel built and double ended with curved stem, nearly vertical stern-post; center line rudder with yoke and yoke lines.

Rig:

The mast stepped near the bow and lugsail.

Dimensions:

Length 24 to 37 feet Breadth 4 feet, 5 inches to 6 feet, $7\frac{1}{2}$ inches Depth 1 foot, 10 inches to 2 feet, 9 inches

References:

-- Encyclopaedia van Nederlandsch Indie. - Leiden, 1927. .

Mitman, C.W.- Catalogue of the Watercraft Collection in the U.S. National Museum. - Washington, D.C. - 1923.

Notes:

RIOUW - LINGGA ARCHIPELAGO

Riouw Islands

Local Name of Craft: (35) "Kolek Mantang."
(35) "Kolek Selat."
(35) "Kolek Tambang."

Type and Use:

A plank-built canoe used for inter-island transportation and fishing in the Riouw Archipelago.

Constructional and other Features:

Rounded forefoot. High pointed stem and stern post with decorative paint work or carvings. Carvel planking.

Notes:

Local Name of Craft: (30) "Bidar."

A dugout canoe used for transportation. It is rigged with one mast.

Dimensions (average):

Length 24 feet Breadth 4 feet Depth 2 feet

Capacity $2\frac{1}{2}$ tons.

Notes:

RIOUW - LINGGA ARCHIPELAGO

Riouw Islands

Local Name of Craft: (36) "Bandung."

Type and Use:

A plank-built sailing craft generally engaged in the transportation of firewood and charcoal between the Riouw Islands and Singapore. Their capacity ranges from 5 to $9\frac{1}{2}$ tons.

Constructional and other Features:

The hull is constructed of Merawan wood.

Rig:

One or two masts and quadrilateral sails with yard and boom.

Dimensions (Typical):

Length 54 feet Breadth 13 feet Depth 6 feet

Crew 5.

References:

Smyth, H.W. - Boats and Boatbuilding in the Malay Peninsula
- 1906.

-- Enclopaedie van Nederlandsch- Indie. - Leiden, 1927.

Notes:

MALAY PENINSULA

Strait of Malacca

Local Name of Craft:

"Sampan Pukat."

"Lanchang Pukat."

(19). "Sampan Ikan."

Type and Use:

A sail and row boat engaged in the seine net fisheries of the East and West Coasts of Sumatra. It is also found in the Achin district and the Riouw-Lingga Archipelago and is usually manned by Chinamen. These boats venture far out to sea and stay out for several days on the fishing grounds.

Constructional and other Features:

The hull is keel-built with sharp stern and flat bottom. The broadest section lies at a distance of $1/3$ to $1/4$ length from the stern. It is said to lack stability under sail owing to its shallow draft.

Rig:

One or two short masts with spritsails or boomed lugsails. Oars also used for propulsion. The men stand facing forward when rowing.

Typical Dimensions:

Length 52 feet Breadth 10 to 12 feet Depth 10 feet

Crew 7

References:

Paris, E. F.- Essai sur la Construction navale des peuples

"Sampan Pukat" - "Lanchang Pukat" - "Sampan Ikan" - continued

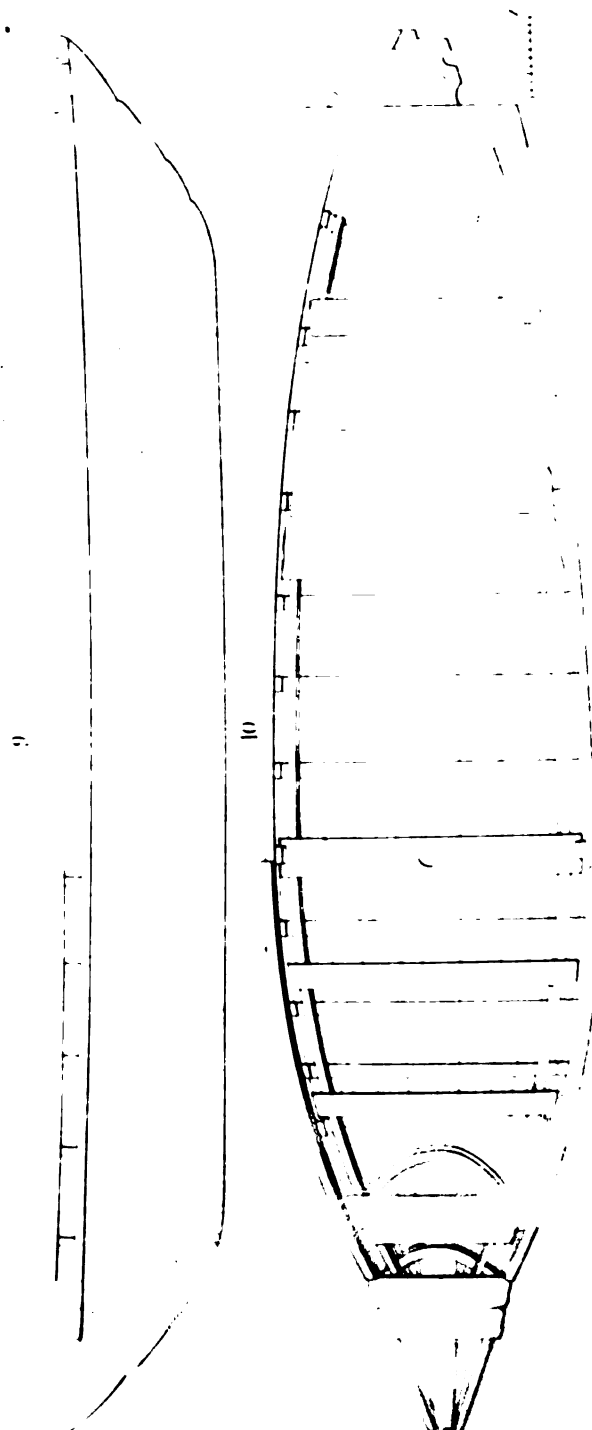
Extra-Europeens.- Paris, 1896.

-- Encyclopaedie van Nederlandsch Indie.- Leiden, 1927.

Notes:

This type of craft is very similar to the "Bang Choon"

(see No. 28) from Singapore.



OSS R 733770

Plan Sempan Pukat - after Paris

MALAY PENINSULA

Straits of Malacca

Local Name of Craft:

(21) "Penjajap."

Type and Use:

A small Malay sailing vessel employed in the coasting trade of the Straits of Malacca and on the West Coast of the peninsula.

Constructional and other Features:

The hull is keel-built with straight raking stem, sharp stern with overhanging gallery. The sides are raised by a washstrake made of palm leaves. A loose deck of bamboo battens is laid over the beams. There is a deck house amidships made of palm leaves with thatched roof. The center line rudder is of the usual western design.

Rig:

There are one or two masts depending on size of boat and quadrilateral sails with yard and boom. Long narrow oars are also used for propulsion.

Dimensions: (Large Type)

Length 55 feet Breadth 11.1 feet Depth 6.8 feet

References:

--Encyclopaedie van Nederlandsche Indie.-- Leiden, 1927.

"Penjajap" - continued

Paris, E. F.- Essai sur la Construction Navale.-

Paris, 1896.

Smyth, H. W.- Mast and Sail in Europe and Asia, London,
1929.

Notes:

The name "Penjajap" was formerly applied to a comparatively large and fast sailing craft with two or three masts used mostly by pirates in the Straits of Malacca and adjacent waters. This type is now believed extinct. The name "Pagar Tenggalong" is given to a type of "Penjajap" with peculiarly ornamental bulwarks or rail. The present day "Penjajap" is also used as house boat by the Orang-Laut or sea-dwelling people of the North West Coast of the Malay Peninsula.

MALAY PENINSULA

West Coast

Local Name of Craft: (16) "Sampan-Gebeng."

Type and Use:

A craft used as house-boat by the Orang-Laut people
from the West Coast of the Malay Peninsula.

Notes:

MALAY PENINSULA

West Coast

Local Name of Craft:

(18) "Sampan-Kumbar."

Type and Use:

Dugout fishing canoe from Kedah State. It is made of
Kumbar wood and provided with plank washstrakes.

Notes:

MALAY PENINSULA

West Coast

Local Name of Craft:

(22) "Prahu-Lading."

Type and Use:

A long dugout canoe employed by the Orang-Laut people
for fishing and transportation.

Notes:

MALAY PENINSULA

West Coast

Local Name of Craft:

"Tang-Vay." (Not on map)

Type and Use:

A small trading junk, decked fore and aft and rigged with one mast and Chinese lugsail. These craft take fairly long trips up and down the coast.

Notes:

MALAY PENINSULA

West Coast

Local Name of Craft:

(23) "Bidar."

Type and Use:

A row boat with beak-head.

Dimensions (approximate) and capacity:

Length 24 feet Breadth 4 feet Depth 2 feet

Capacity $2\frac{1}{2}$ tons

Crew 3

Notes:

MALAY PENINSULA

Local Name of Craft:

(24) "Tongkang."

"Tongkung."

Type and Use:

A sea-going ketch rigged sailing barge of Chinese origin employed in the coastal timber trade between the Malay Peninsula (Johore-Pahang) and Mersing Islands, Riouw Islands to Singapore. It is also used in some roadsteads for the transfer of cargo from ship to shore and vice-versa.

Constructional and other Features:

The hull is keel-built with flat bottom straight raking stem and square stern with a rectangular gallery or platform projecting about ten feet outboard. There is a large open space between the two masts which forms the cargo hold. Forward of the main mast and abaft the mizzen there is a permanent deck. The square outboard rudder is of Chinese pattern with diamond shaped holes. It is slung by pintles and gudgeons. Each timber is made up of three natural grown pieces, floor, bilge piece and frame. The planking is carvel built. There is a ceiling. Both planking and ceiling are strengthened by heavy wales. When deep loaded wash boards are fitted the length of the hold.

Rig:

The rig is entirely of European design and consists of

"Tongkang" - "Tongkung" - continued

a long sharply steeved bowsprit with shrouds. The main and mizzen masts are stepped one at the break of the fore deck, the second at the break of the after cuddy so as to leave a clear space for the cargo in between. The sail plan is that of an ordinary ketch without topsails and three headsails. Wire standing rigging.

Typical Dimensions:

Length 97 feet Forecastle 33 feet Hold 43 feet
After Cuddy 21 feet Breadth 30 feet Molded Depth 15 feet

References:

Waters, D. W.- The Tongkung.- Mariner's Mirror.- London.-
Vol. 26, 1940.

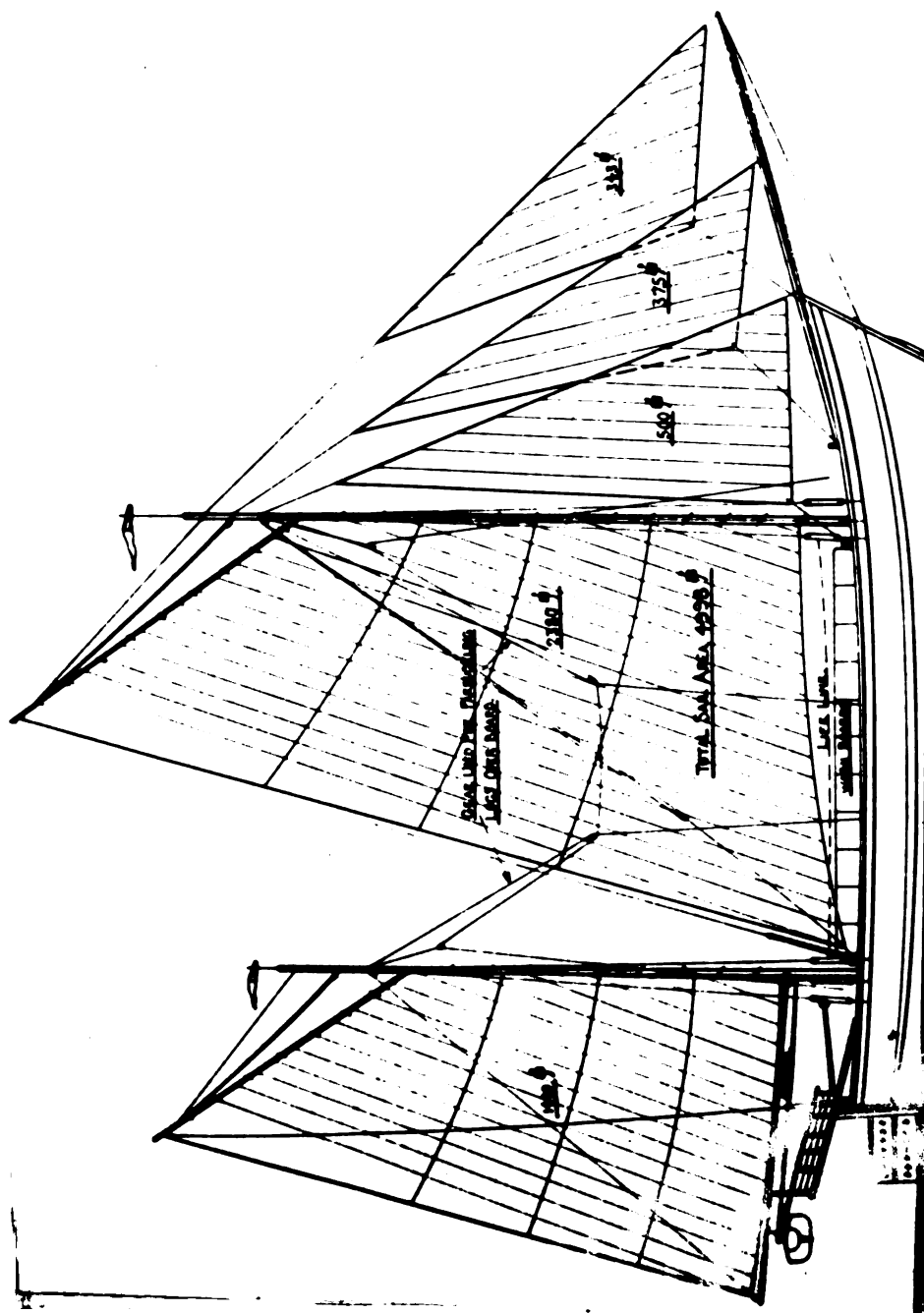
-- Encyclopaedia van Nederlandsch-Indie.- Leiden, 1927.

Kreemer, J. J.- Atjeh.- Vol. I.- Leiden, 1922.

Blake, W. M.- A Chinese Timber Tongkang.- Yachting (N.Y.)
Vol. 46.- October, 1929.

Notes:

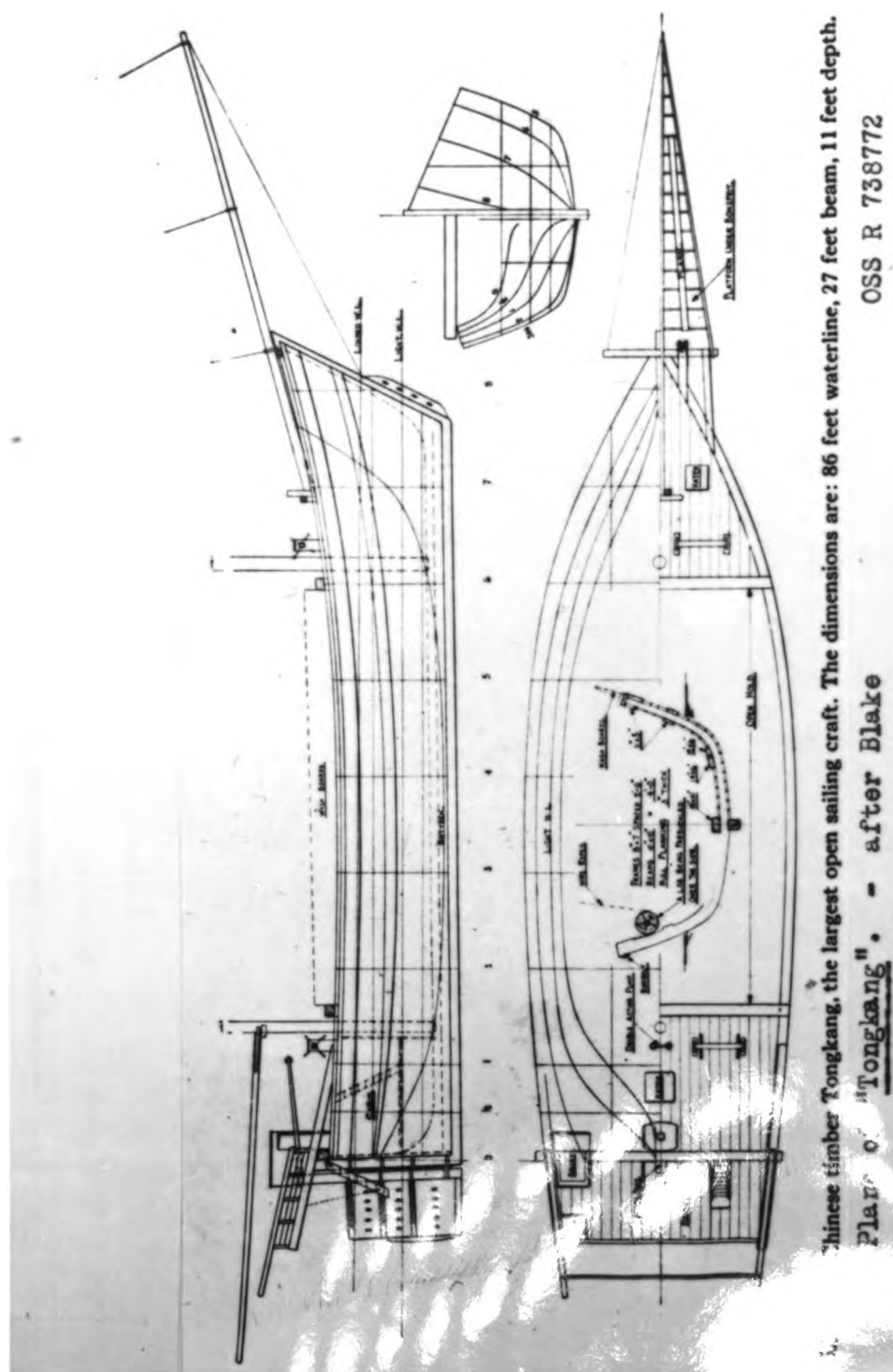
In Achin (Northern Sumatra) it is known under the name of
"Senat."



Sail plan of the Kim Hock Choon Lee.

Plans of "Tongkang" - after Blake

OSS R 738771



MALAY PENINSULA (West Coast)

State of Selangor

Local Name of Craft: (25) "Kakap Jeram."

Type and Use:

Open fishing boat from the district of Kuala Lumpur.

Kakap means scout and Jeram is the name of the fishing village from which the type originates.

Constructional and other Features:

The hull which is planked and framed is made of "Meranti" wood with carved figurehead on stem and ornamented sternpost. A washstrake made of bamboo splits sewn together with bamboo withies, is held in position by lashings to knees brought up from the boat's frames. A heavy beam is fitted forward and used for winding the anchor cable and bitting it. The steering gear consists of a paddle held on the quarter on a stout upright and held at the neck by a rattan lashing.

Rig:

One mast with battened Chinese lugsail. Average length of mast 13 feet.

Dimensions (average) and capacity:

Length 13 feet Breadth 7 feet Depth 3 feet

"Kakap Jeram" - continued

Freeboard 1 foot

Crew 3

References:

Smyth, H. W.- Mast and Sail in Europe and Asia.-

London, 1929.

Notes:

MALAY PENINSULA

Singapore Island

Local Name of Craft: (27) "Prahu-Lambu."

Type and Use:

A half-decked sailing craft of Western design used for transportation around Singapore Island and adjacent waters. It is also called "Prahu-Bugis" by the Singapore Malays.

Constructional and other Features:

Double ended-hull with plumb stem, hanging keel, carvel planking. The fore part is decked as far as the mast. The after part is covered by the usual roof shaped superstructure of palm leaves. A portable platform made of bamboo splits is provided under this superstructure.

Rig:

Gunter rig with two headsails and a short bowsprit. There are three shrouds on each side.

Dimensions (typical):

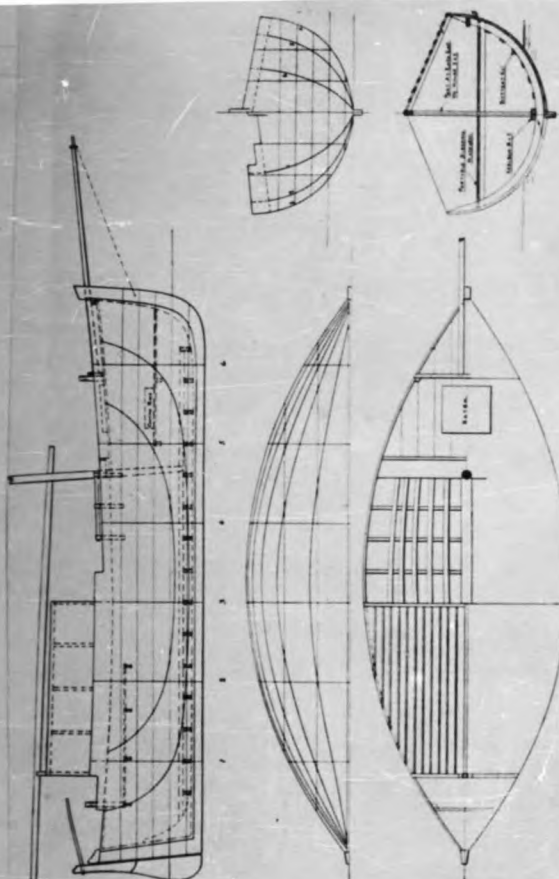
Length over all $36\frac{1}{2}$ feet Breadth $12\frac{1}{2}$ feet

Draft loaded $5\frac{1}{2}$ feet

References:

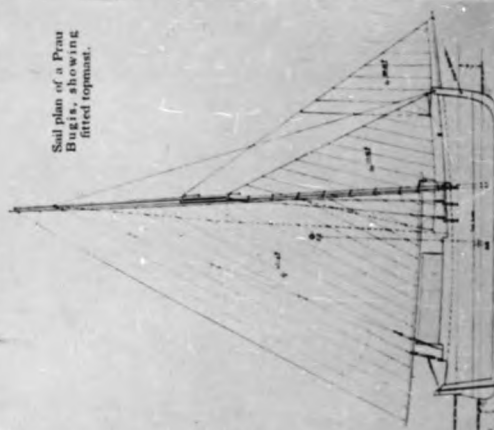
Blake, W. M.- The Prau Bugis.- Yachting, N.Y. 1929.

Notes:



Plans of "Fahu Lamby". - after Blake

Sail plan of a Pau
Bugie, showing
fitted topmast.



CUS R 738773

MALAY PENINSULA

Island of Singapore

Local Name of Craft:

(28) "Bang Choon."

Type and Use:

Open fishing boat employed in the seine net fisheries around Singapore. The net used is a beach seine 240 fathoms in length with a mesh of one inch, decreasing to half an inch at the bag. The hauling ropes are made of twisted rattan.

Constructional and other Features:

The long narrow hull with good sheer has a rockered bottom and sharp raking stem and stern. It is keel-built with carvel planking about one inch thick and natural grown frames made of Penaga wood. A false keel is fitted about two-thirds of the length. A center line rudder with gudgeons and pintles is used when under sail. There is no deck except aft where portable planks are laid over a space about 6 feet long.

Rig:

Sails and oars are used to propel the boat. There are two short portable masts, fore and main. The fore mast is stepped right in the bows and rakes forward. The mainmast is vertical and stepped a little aft of half

"Bang Choon" - continued

length. Each mast carries a spritsail of tanned canvas with long head and luff but short leech. Oars used for beach work are 8 feet 5 inches long with very short blade about 1 foot 6 inches in length.

Dimensions:

Length 37 feet 3 inches Breadth 4 feet 9 inches

Depth molded 2 feet

Crew of 7

References:

Blake, W. M.- The Bang Choon.- Yachting (N.Y.)

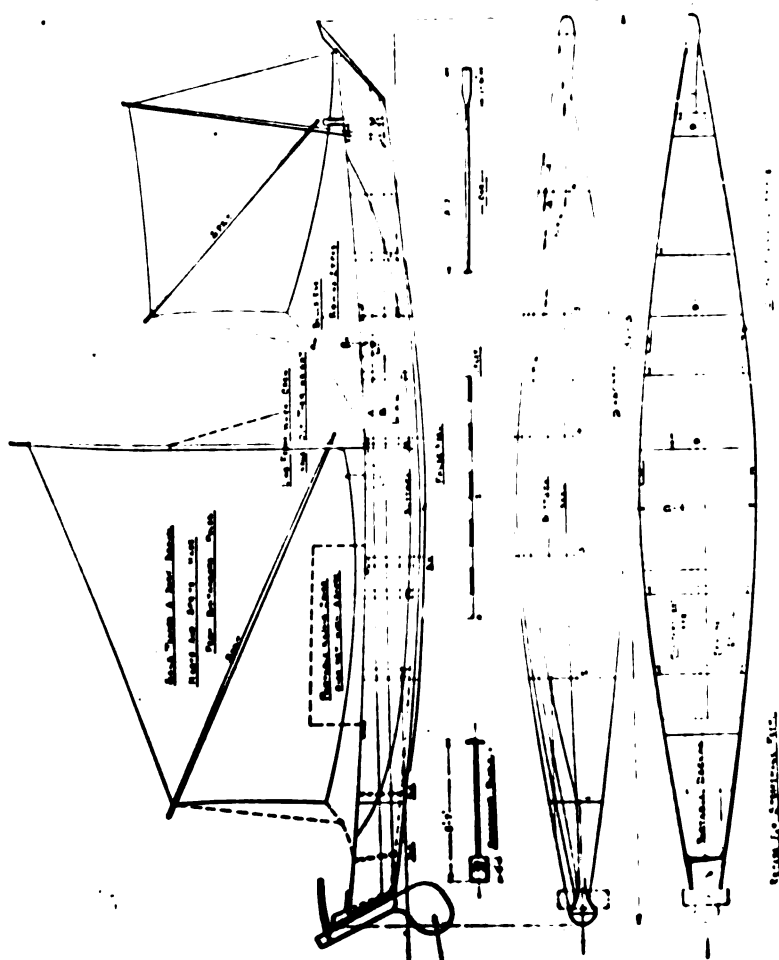
Vol. 44, 1928.

Notes:

—THE BANG CHOON—
NET BOAT
OFFICIAL MEASURE
37' 3" x 9' 8" O.W.



—SECTION—
1/2" = 1'



A Singapore Bang Choon under a single sail.

Plans and Photo of "Bang-Choon", Singapore. - after Blake

Hanging on to one end of the net.

QSS R 738774

MALAY PENINSULA

Singapore Island

Local Name of Craft:

(29) "Twakow."

Type and Use:

Small sailing barge of Chinese design used for transportation in the harbor of Singapore and adjacent waters as far as Batu Pakat and Pulo Ubin.

Constructional and other Features:

Keel-built hull with flat bottom, flaring sides, raking transom bow, broad flat stern. The ends are docked. The hull is divided by two transverse bulkheads. Greatest beam aft of amidships.

Rig:

The rig consists of two masts with battened lugsails of Chinese pattern. The vertical mainmast is stepped in the fore part of the cargo hold next to the forward bulkhead. The foremast is very short and has a sharp forward rake. It is stepped against the bow transom. The sails are made of tanned canvas.

Dimensions: (Average)

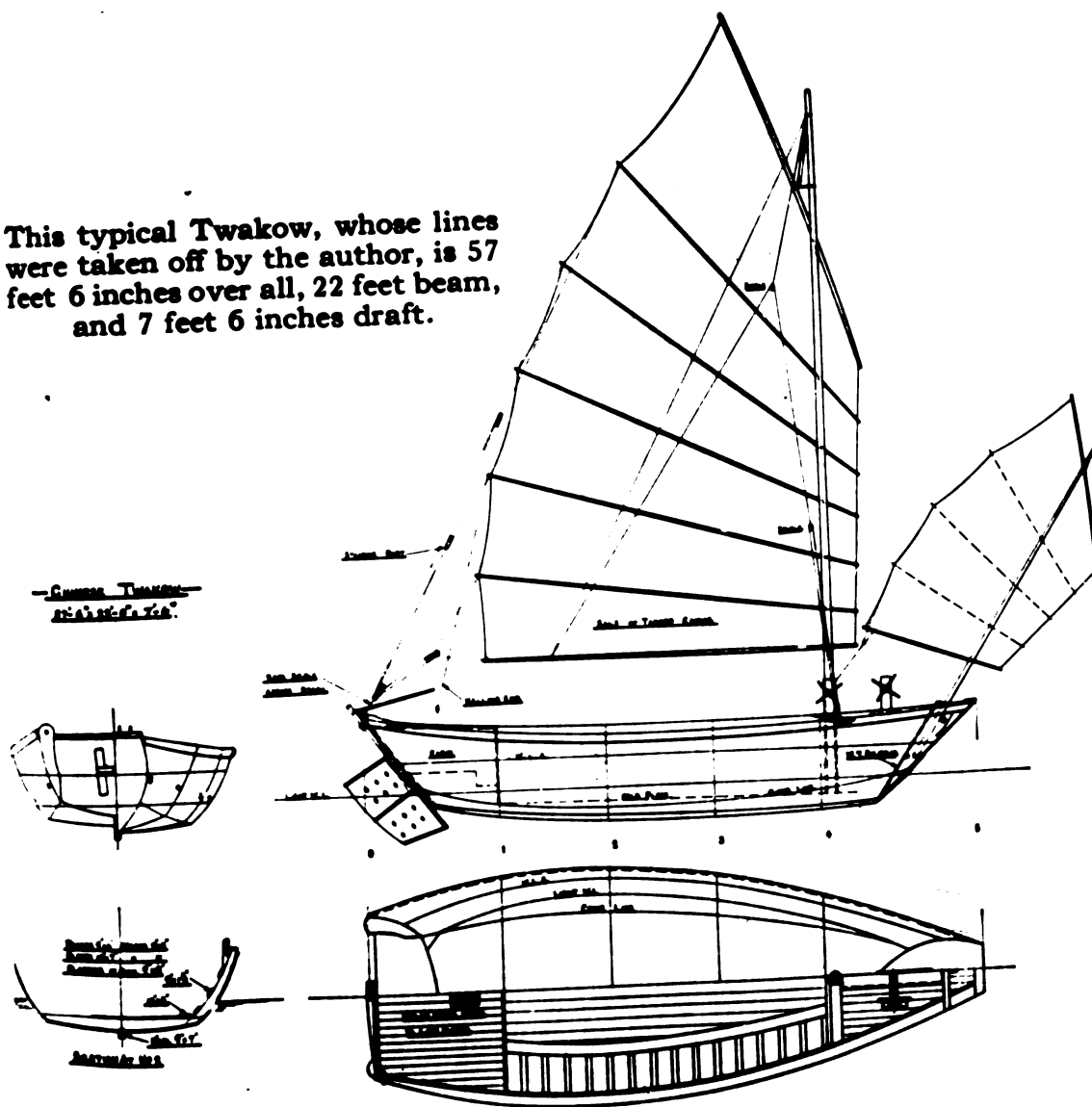
Length over all 57 feet Breadth 22 feet Draft 7 feet 6 in.

References:

Blake, W. M.- The Twakow.- Yachting (N.Y.) Vol.46, 1929.

Notes:

This typical Twakow, whose lines were taken off by the author, is 57 feet 6 inches over all, 22 feet beam, and 7 feet 6 inches draft.



Plans of "Twakow", Singapore. - after Blake

SS R 10776

MALAY PENINSULA.

Island of Singapore

Local Name of Craft:

Unknown (Not on map)

(Singapore Junk)

Type and Use:

A three-masted sailing vessel hailing from Singapore and trading in the Gulf of Siam chiefly between Bangkok and Singapore with cargoes consisting of timber, firewood, salt, earthenware, etc.

Constructional and other Features:

In design and form the hull is a compromise between Chinese and Western practice. It is built with hanging keel, round bilges, sharp bows, straight raking stem, and transom stern with outboard platform for raising the rudder; the latter is of typical Chinese pattern. The vessel is decked fore and aft. There is one large hatchway amidships. The planking is of Giam wood and the framework of Ballow timber. Iron fastenings.

Rig:

The rig consists of three masts with battened lugsails of Chinese type. The foremast is stepped over the fore end of the keel and rakes forward. The mainmast is located at about one-third of the ship's length from forward. It

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Unknown (Singapore Junk) - continued

has no rake. A small mizzen is stepped on the quarter at the extreme end of the stern platform. There are two windlasses forward for working the anchors and sails and one aft for raising the rudder. The sails are of canvas. There is no standing rigging.

Dimensions and Capacity:

Length 72 feet Breadth 22 feet Depth 7 feet

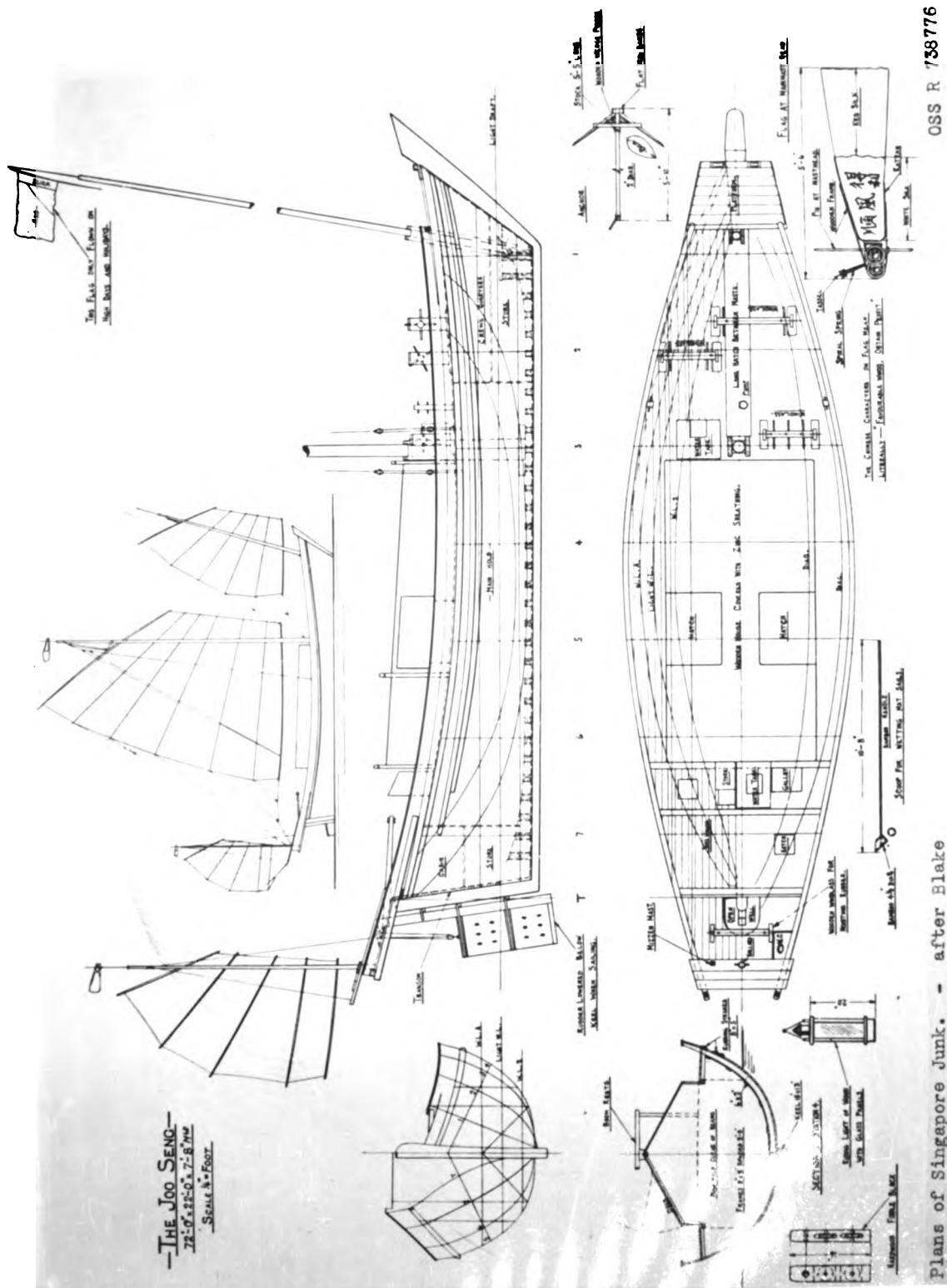
8 inches molded.

Crew 16

References:

Blake, W. M.- The "Joo-Seng" - Yachting, (N.Y.) 1929.

Notes:



Plans of Singapore Junk. - after Blake

ROSS R 738776

MALAY PENINSULA (East Coast)

State of Johore

Local Name of Craft: (37) "Kolek-Pengayer."
"Kolek-Sahari-Bulan."

Type and Use:

A plank-built open fishing canoe from 20 to 30 feet in length employed in the net fisheries on the East Coast of the peninsula. The net used is about 25 feet square and called "Pukat-Tankor." These boats work in pairs.

Constructional and other Features:

The double ended hull is dhaped like a huge crescent with long keel, rounded forefoot and carvel planking fastened to heavy grown frames spaced about three feet apart and extending nearly up to the gunwale. The structure is strengthened longitudinally by a stringer on each side. The upper stem and sternpost are turned up and decorated with carvings. There is no dock. The sides are connected by one or two strong beams through which the mast is stepped. The keel, stem and stern pieces are of "Chengai", a native hardwood; the upper works are made of "Serayah" wood.

Rig:

One mast and square sail of Malay type which measures

"Kolek-Pengayer" - "Kolek-Sahari-Bulan" - continued

about 15 feet at the head and 18 feet at leach laced to a yard and boom. A long oar is used for steering. Three paddles about 4 feet long are provided. The larger boats have two masts.

Dimensions (average) and capacity:

Length 23 feet Breadth $4\frac{1}{2}$ feet Draft 3 feet

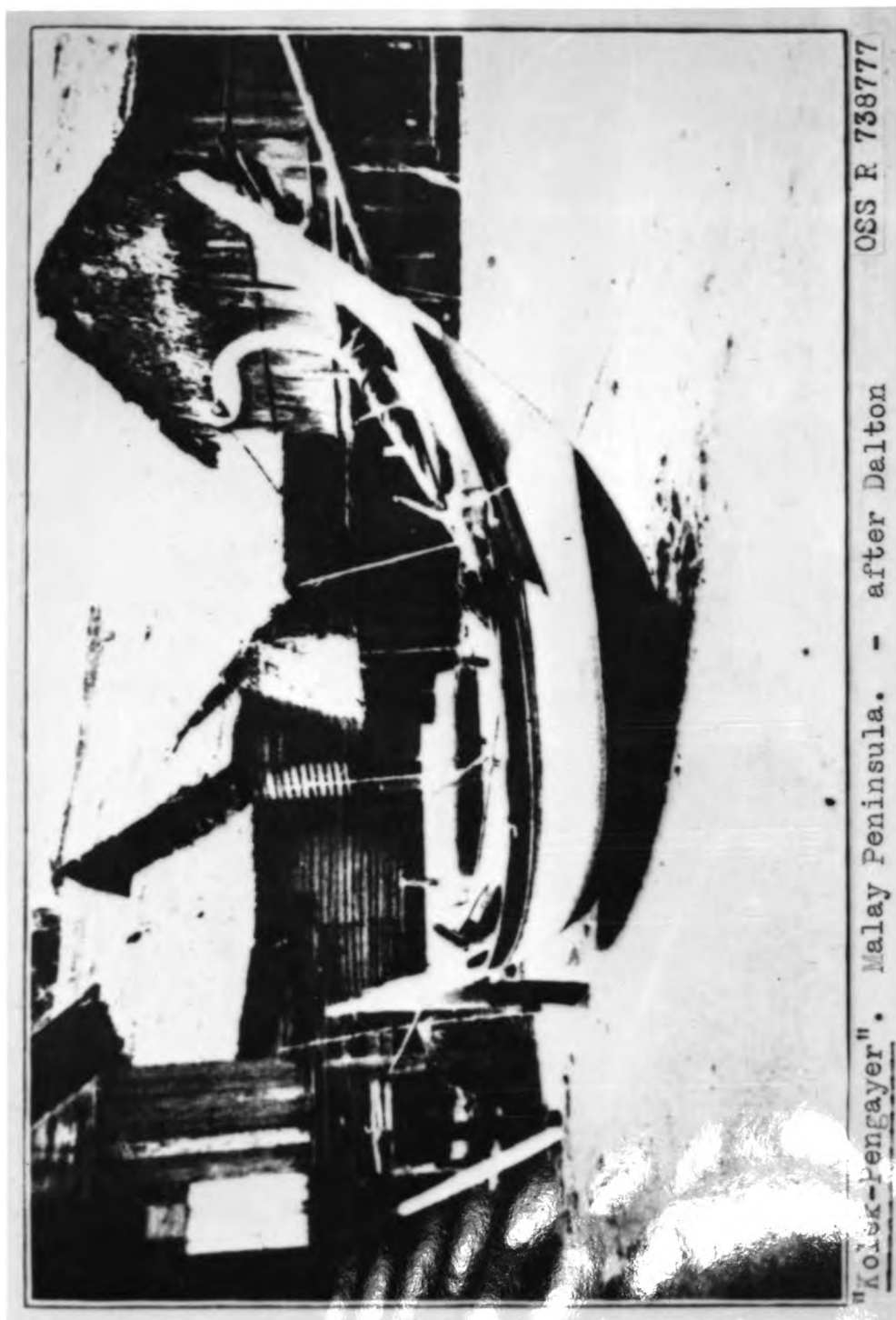
Depth 2 feet Capacity about 20 picul (1.2 ton)

References:

Dalton, H. G.- Malay Boats and their Uses.- Royal Asiatic Society Journal, Vol. IV - 1906.

Notes:

These craft are often called "Sampan Pengayer."



"Kolek-Pengayer". Malay Peninsula. - after Dalton

OSS R 738777

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MALAY PENINSULA (East Coast)

State of Johore

Local Name of Craft:

(38) "Jalor."

Type and Use:

A small dugout canoe used by the natives for transportation, ferry work, also hook and line fishing in sheltered waters.

Constructional and other Features:

The hull is made of hard wood log from the Chengai or Rasak trees with sides raised by one of two strakes of planking made of Seraya wood, to increase the free-board. It has long sharp raking ends and rockered bottom line.

Rig: None.

Paddles are used to propel these craft.

Dimensions (average) and capacity:

These craft vary in length from 13 to 20 feet and have a breadth of about 3 feet. Draft about one foot. They are propelled by one or two men and paddles.

References:

Dalton, H. G.- Malay Boats and their uses.- Royal Asiatic Society Journal, Vol. IV - 1906.

Notes:

A similar type named "Jalor Penjala" is used for fishing with a small net. Dimensions: Length 20 feet
Breadth 4 feet Depth 2 feet.

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MALAY PENINSULA (East Coast)

State of Johore

Local Name of Craft: (39) "Kolek Kelibat."

Type and Use:

A plank-built craft used in the gill net and line fisheries of the East Coast of the Peninsula. It is handled by a crew of 2 or 3 men. The net called "Jaring Tamban" is 18 feet square.

Constructional and other Features:

The hull is similar to that of the "Kolek Pulo" but built with heavier scantlings. It has the turned up ends in the form of a bow and the outside is painted in bright colors. A ceiling is fitted in the bottom of the boat. A center line rudder with yoke lines is used for steering.

Rig:

Square shaped sail with yard and boom. Three large paddles are also used for propulsion. The sail is generally tanned a rich brown color by a decoction of mangrove bark.

Dimensions:

Length 13 to 17 feet Breadth $2\frac{1}{2}$ to $3\frac{1}{2}$ feet

References:

Dalton, H. G.- Malay Boats and their uses.- Royal Asiatic Society Journal, Vol. IV - 1906.

Notes:

MALAY PENINSULA (East Coast)

State of Johore

Local Name of Craft: (40) "Kolek Pulo."

Type and Use:

The smallest plank-built canoe used for hook and line fishing on the East Coast of Johore and adjacent Islands. It is handled by one man who sits amidships.

Constructional and other Features:

The double ended hull is built with turned up ends in the form of a bow. The rockerd keel is made of a specie of hard wood called Kayn-Teruntum and the planking of Kayu-Medang, a soft wood. The outside is painted in bright colors; green, blue, red, yellow, after Malay fashion.

Rig:

One bamboo mast and square shaped sail with yard and boom to which the sail is laced. A double bladed paddle is used for propulsion in calms or head winds and also for steering.

Dimensions (average):

Length 7 feet Breadth $2\frac{1}{2}$ feet Draft about 1 foot

References:

Dalton, H. G.- Malay Boats and their uses.- Royal Asiatic Society Journal, Vol. IV - 1906.

Notes:

MALAY PENINSULA (East Coast)

States of Johore, Pahang and Trengganu

Local Name of Craft:

(41) "Payang."

Type and Use:

The largest native fishing craft used on the East Coast of the Malay Peninsula. These craft work with a purse net called Pukat-Petarang about 110 to 125 feet long and 16 to 18 feet wide.

Constructional and other Features:

The hull is double ended with blade shaped stem and stern pieces with slight outward curve rising for a considerable height above the gunwale of the boat. These end pieces as well as the keel, bottom planking and frames are made of hardwood (Chengai) while all structural parts of the upper works are made of light woods called "Serayah" or "Medang" so as to give more buoyancy to the boat in case it should be swamped. The keel and garboard are cut out of one log. The planking is carvel built. A loose decking extends fore and aft with the exception of a small open space just forward of the mainmast.

Rig:

Two masts and square-shaped sails with yard and boom. The foremast is stepped just aft of the stem and has no rake. The mainmast, stepped at about one-third of the length from forward, is bowed down at the head by a stay. The foresail

"Payang" - continued

has an area a little over half of that of the mainsail. The end of each boom is fitted with two pieces of wood crossing each other at right angles. These are used like the spokes of a wheel and turned over and over when reefing or furling the sails. In addition to the sails each Payang is provided with thirteen or fourteen oars, four or five paddles and a large steering oar used when making long trips.

Typical Dimensions:

Length over all 50 feet Breadth 7 feet 6 inches
Draft 3 feet Depth molded 2 feet 10 inches,
Sail area: 1001 square feet.

References:

Dalton, H. G.- Malay Boats and their uses.- Royal Asiatic Society Journal, Vol. IV - 1906.

Blake, W. H.- The Trengganu Payang.- Yachting (N.Y.)
September, 1929.

Notes:

A larger type of same build and rig is employed in the the coasting trade. Dimensions: Length 72 feet
Breadth 12 feet Depth 5 feet. It is known elsewhere as "Prah-Puket" or "Prah Pemayang."

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MALAY PENINSULA (West Coast)

Pahang State

Local Name of Craft:

(42) "Jalak."

(42) "Jelang."

Type and Use:

A plank-built open boat from the West Coast of the Malay Peninsula employed in the coasting trade.

Constructional and other Features:

The hull is made of "Giam" wood and is structurally the same as that of the "Payang" from the East Coast, but larger.

Rig:

The rig consists of two vertical masts and square shaped sails with yard and boom. The foremast is stepped near the stem; the mainmast at approximately one-third of the boat's length measured from the stem. The sails are made of screw-pine leaf.

Dimensions:

Length 72 feet Breadth 12 feet Depth 5 feet

Crew 8.

References:

Smyth, H.W.- Mast and Sail in Europe and Asia.- London, 1929.

Notes:

ANAMBAS ISLANDS

Local Name of Craft: (43) "Sampan Kieu."

Type and Use:

A small double ended planked boat used for inter-island transportation and fishing.

Constructional and other Features:

Hull constructed with straight raking stem and sharp stern, small sheer.

Rig:

One mast stepped at about one-third length from the stem.
Quadrilateral sail with yard and boom.

Dimensions (typical):

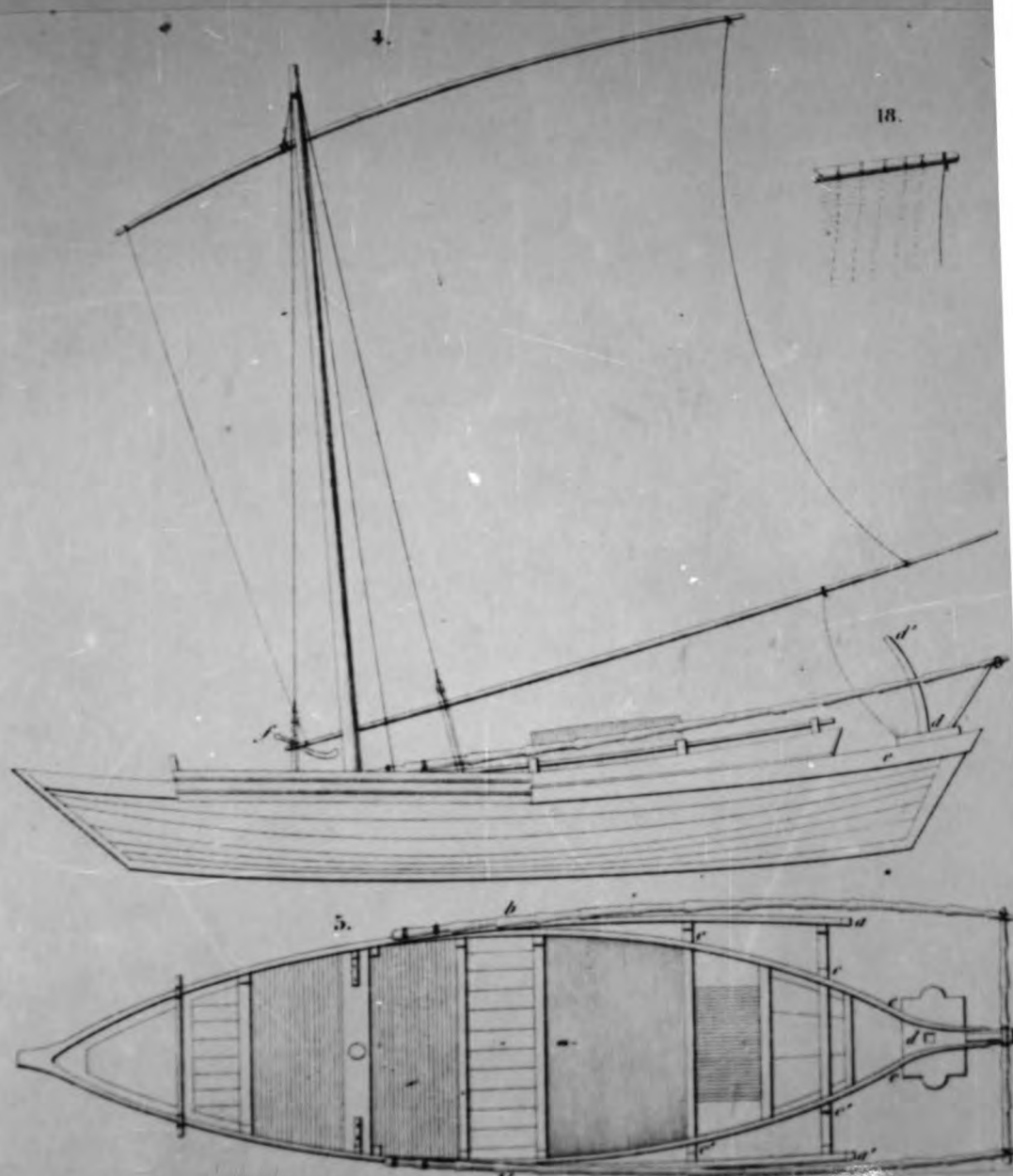
Length 21 feet. Breadth 5.2 feet Depth 1.8 feet

References:

Paris, E. F.- Essai sur la construction navale des peuples Extra-Europeens.- Paris, 1896.

-- Encyclopaedie van Nederlandsch Indie.- Leiden, 1927.

Notes:



Plan of "Sampan Kiau", Anambas Islands. - after P.

R 738779

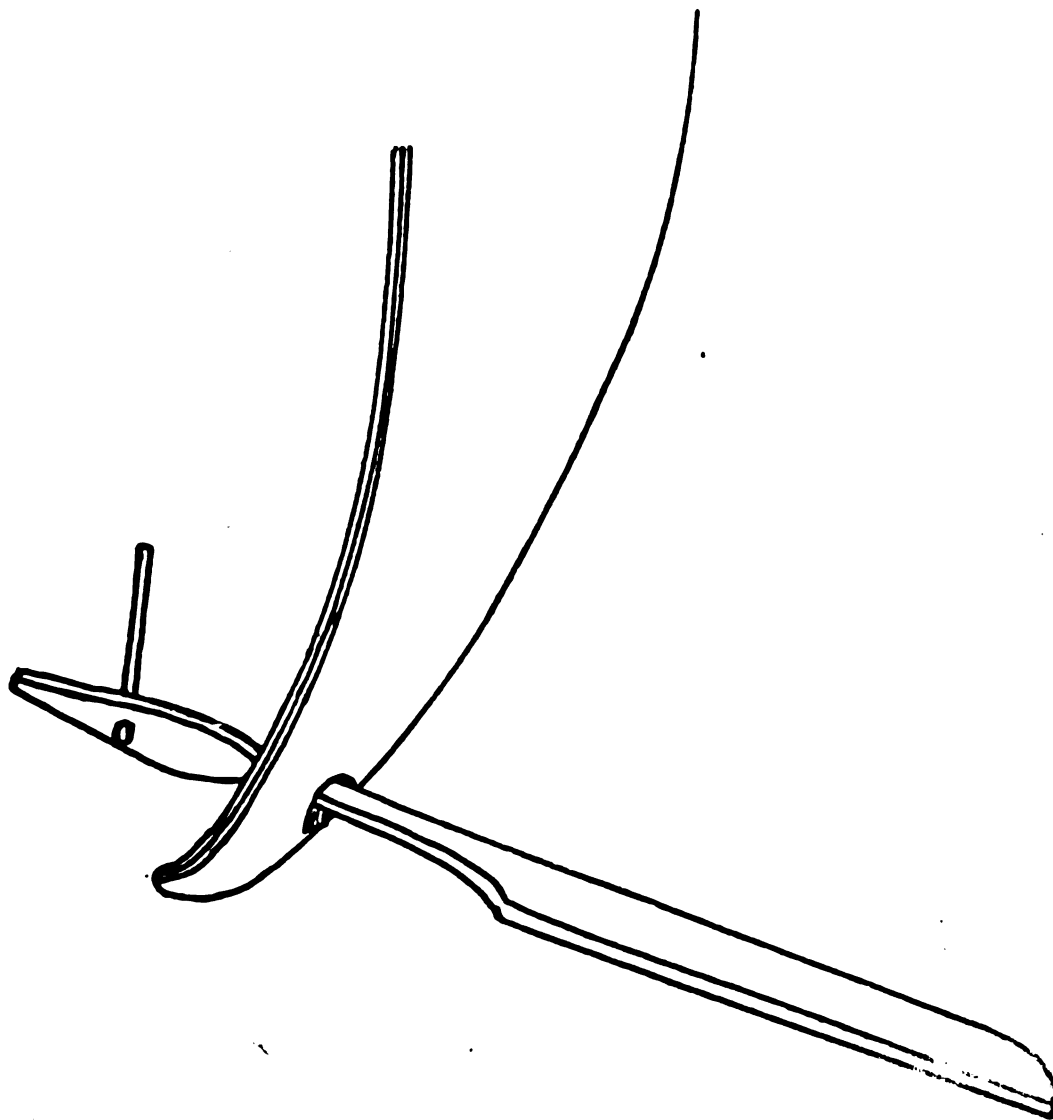




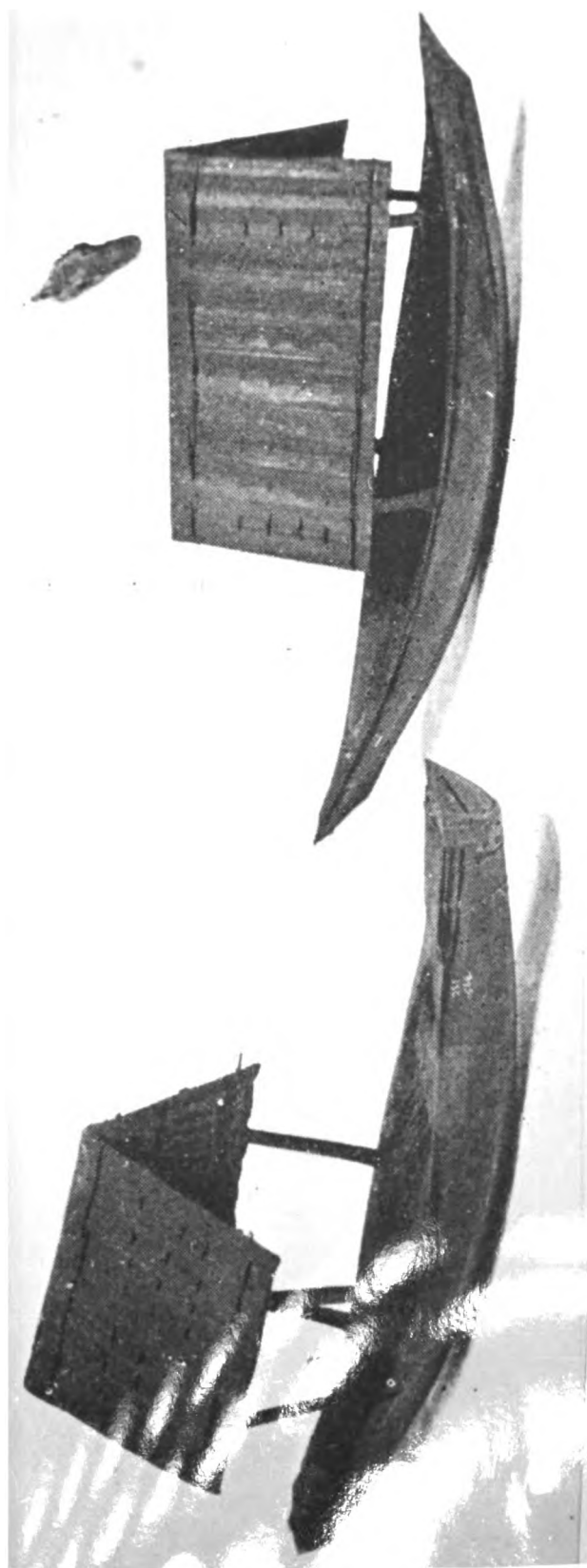
1. "Abak" from Mentawai Islands.

OSS R 738576





2. Ruler of a Mentawai trunk canoe near Meas (from Nooteboom, 1932).
033 R 734271



Model of a PRAHU TINDA or PENTJALANG from Palembang. (On map but not described in text. From Nooteboom, 1932).
OSS R 734264



1. Model of a PRAHU TINDA or PENTJALANG from Palembang. (From Nootboom, 1932).
OSS R 734263



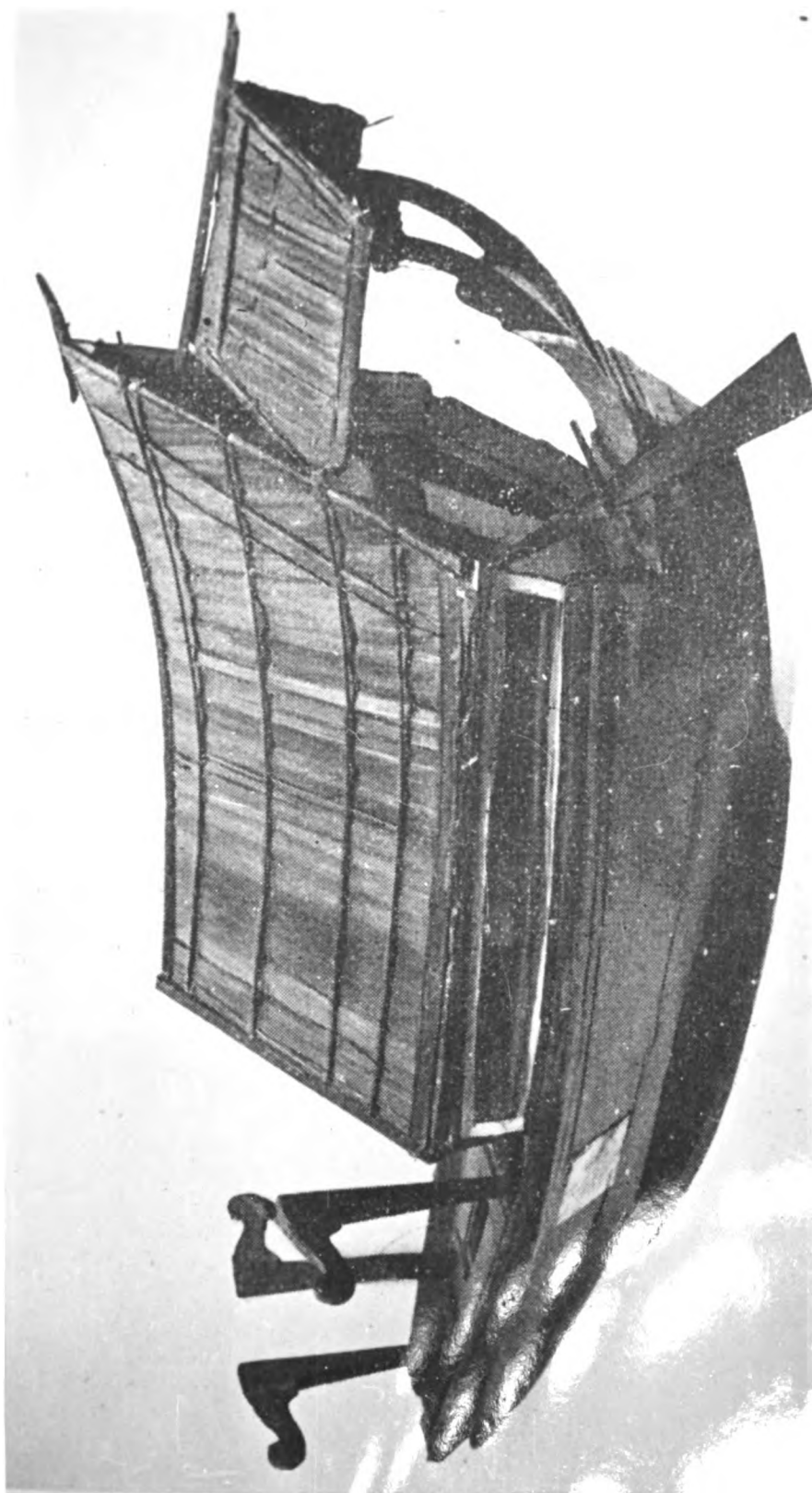
5. Native Craft on the Moesi River, Palembang. OSS R 110564



6. Native Craft on the Moesi River, Palembang (1937 or earlier). OSS R 28530



7. Drunk canoes on the Moesi River, Palembang (1932 or earlier). OSS R 734262



8. Side of PRAHU LINGKIS from Palembang (From Hootboom, 1932)

OSS R 734266



Native Craft on the Moesi River, Palembang.

OSS R 28548

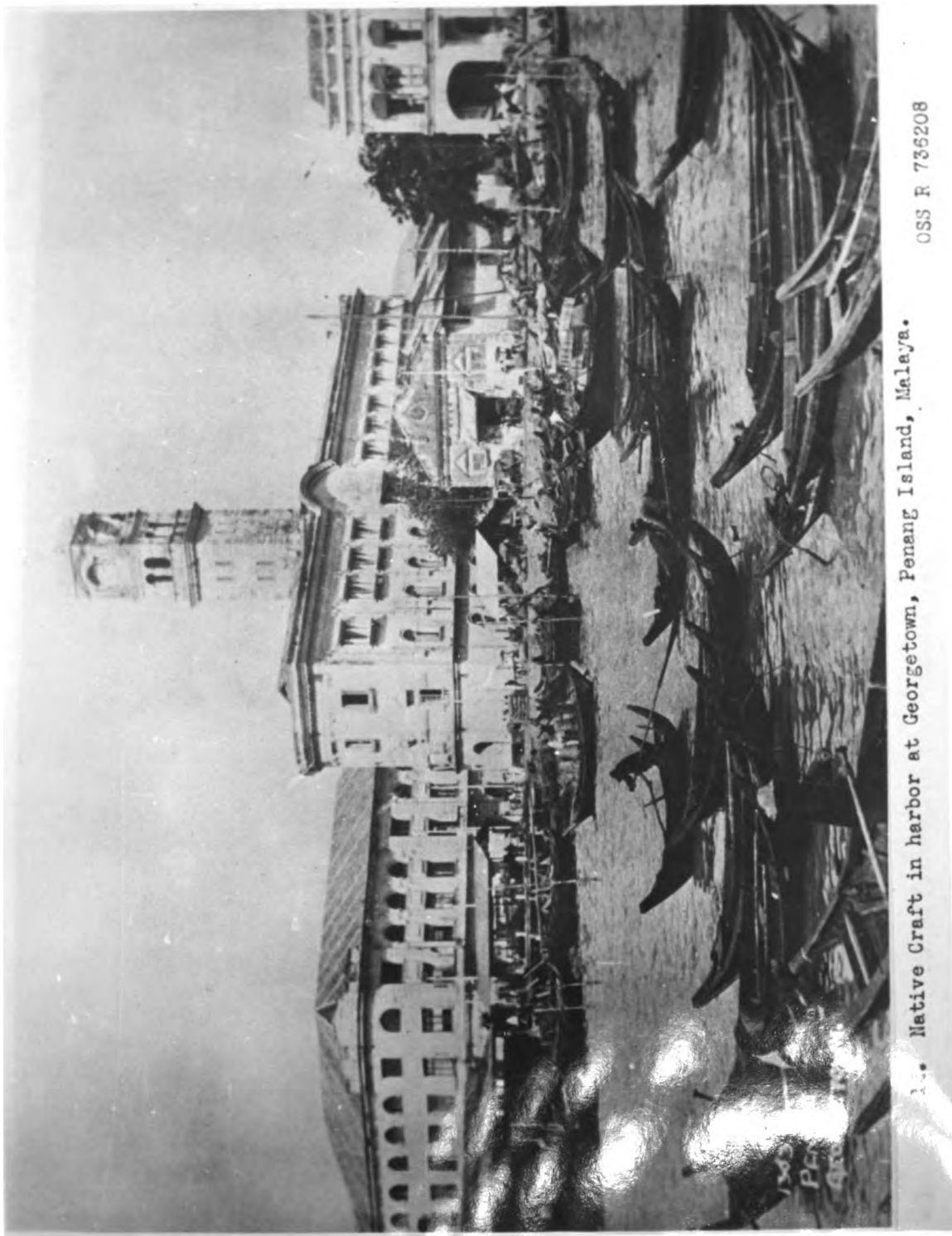


Native Craft on the Moesi River, Palembang.

OSS R 28562

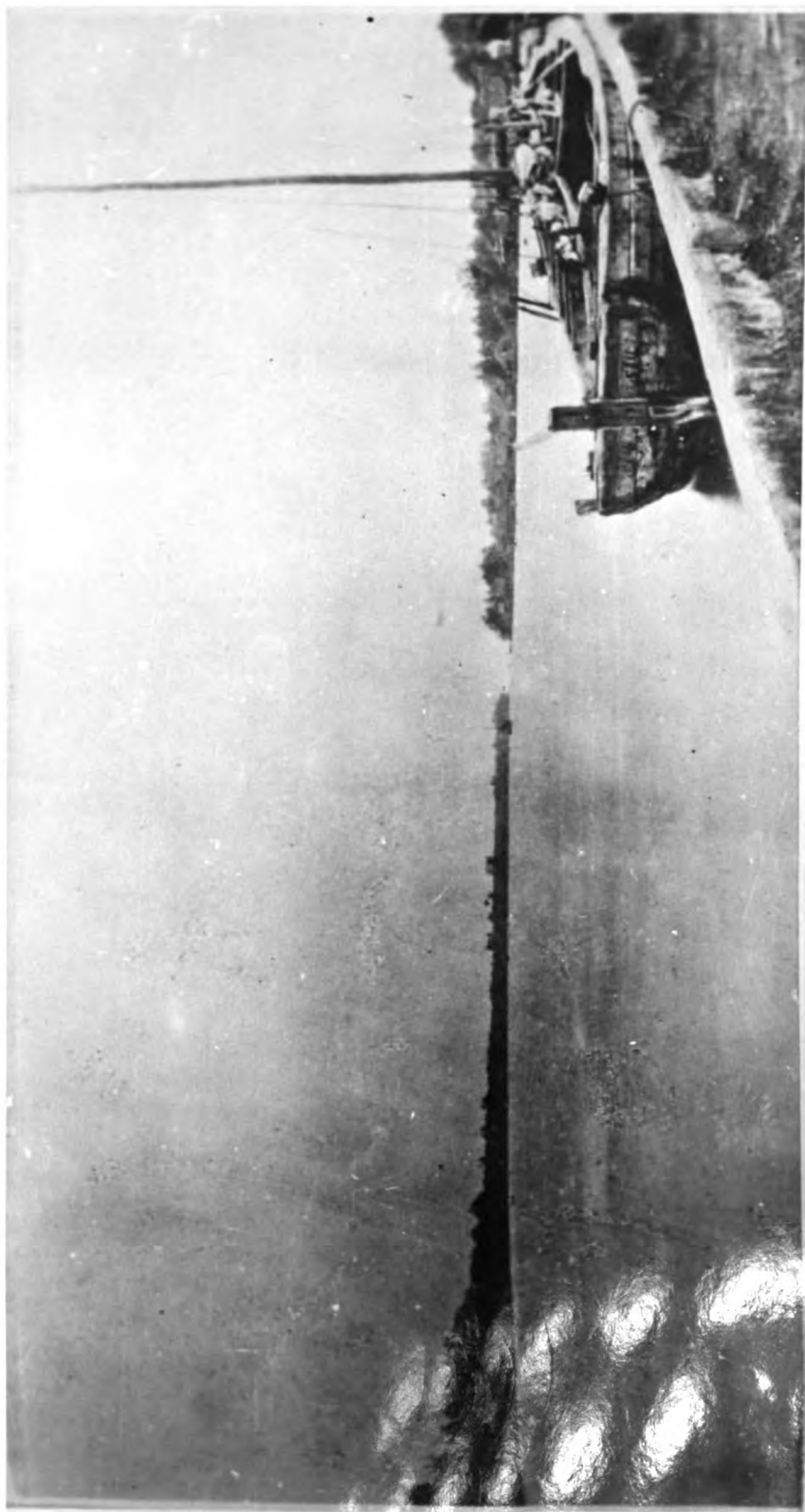


11 Freight barges off harbor at Georgetown, Penang Island, Malaya. (April 1938).
OSS R 730377



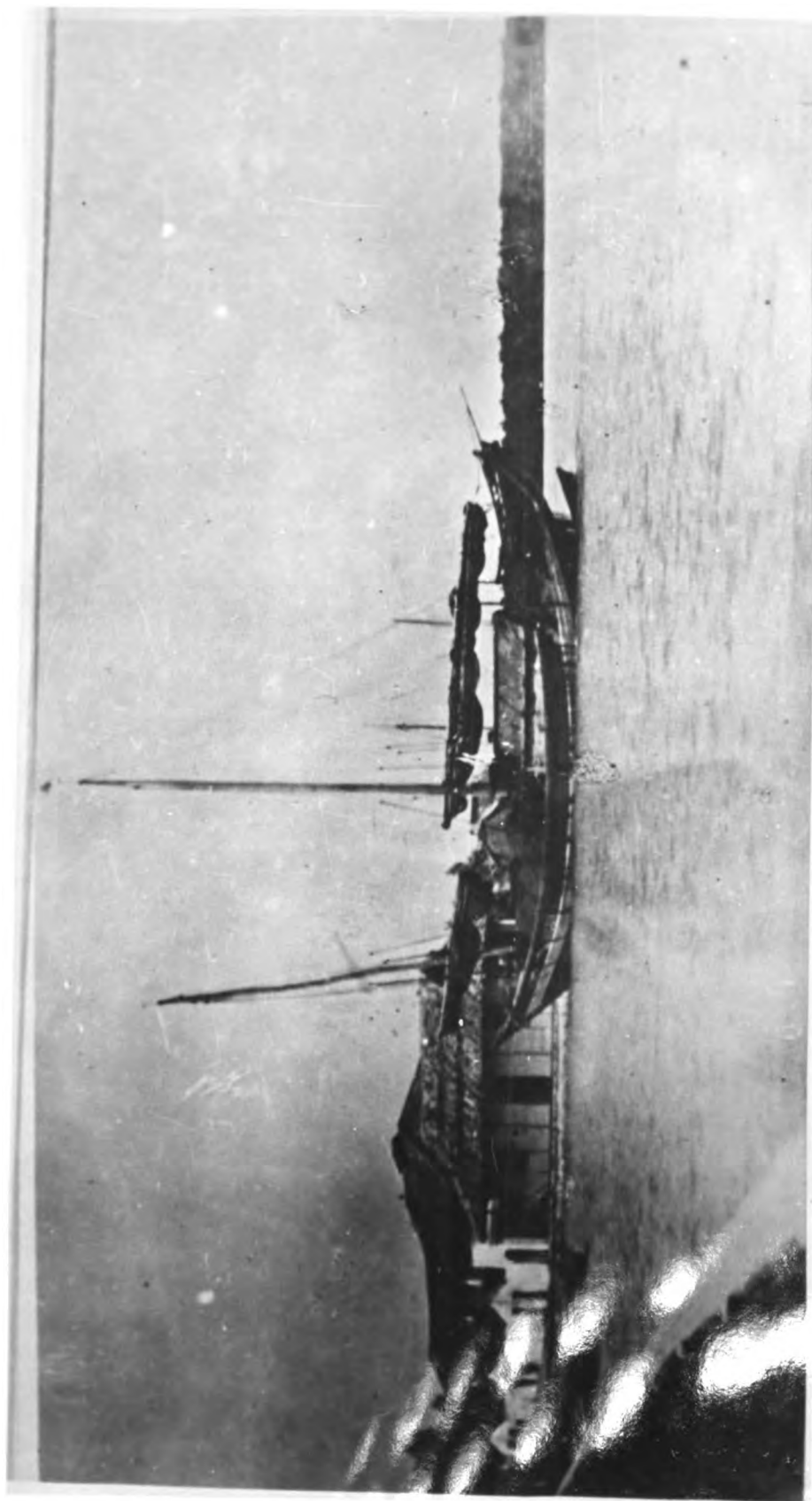
11. Native Craft in harbor at Georgetown, Penang Island, Malaya.

OSS R 735208



13. Native Craft on the Kurau River at Kuala Kurau, Perak, Malaya.

OSS R 736198



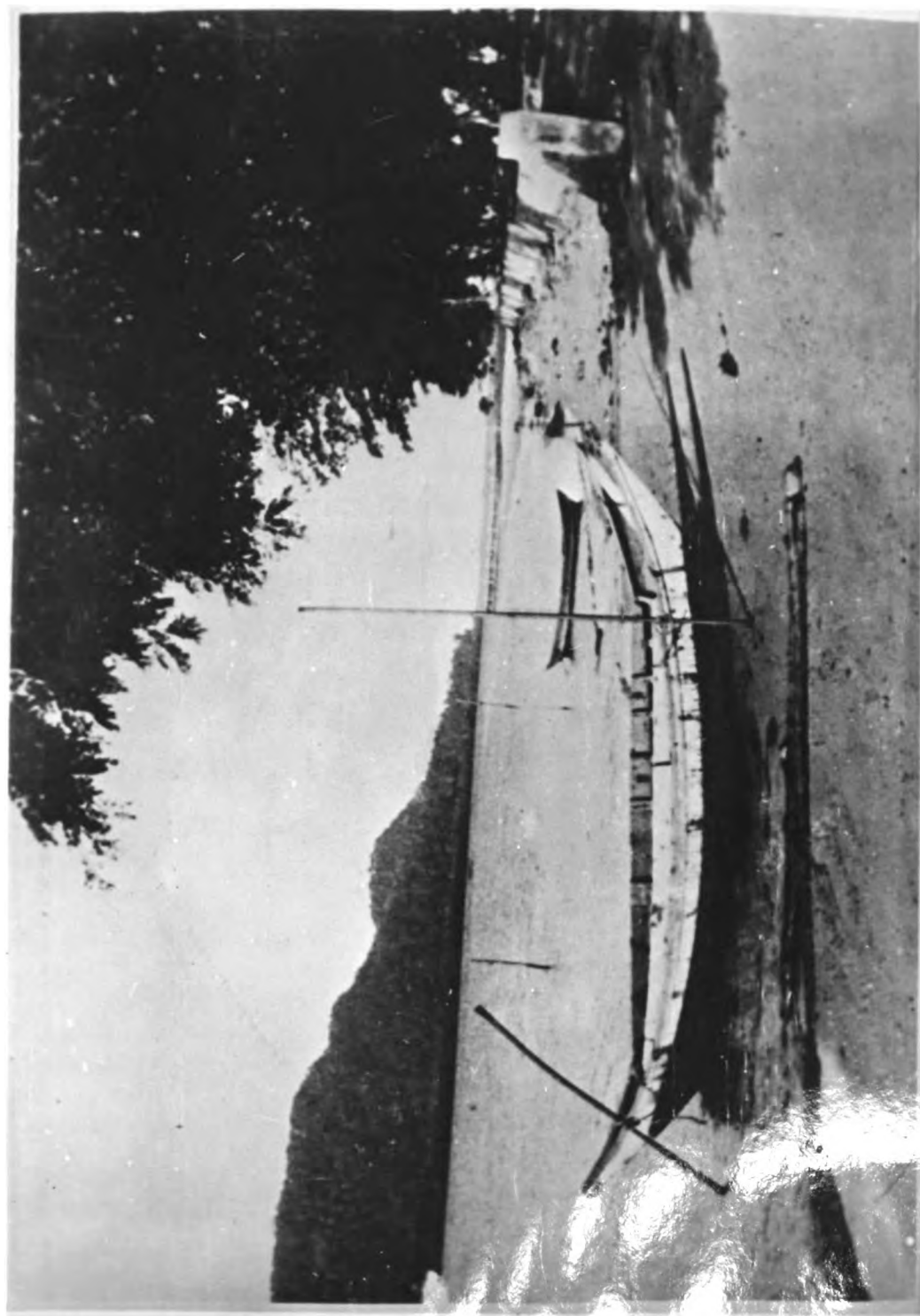
14. Natl. Craft on the Kurau River at Kuala Kurau, Perak, Malaya.

USS R 736193



15. Native Craft on the Jaha River, Perak, Malaya.

USS R 736120



16. Native Craft on the Dindings River at Limut, Perak, Malaya.

OSS R 736200



17. Sampans and Lighters at Malacca, Malaya
J R 736213

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Research and Analysis Branch

R & A No. 2327

(Supplement to Part II)

NATIVE CRAFT IN SOUTHEAST ASIA WATERS

(Sumatra, Malaya, and Adjacent Islands)

Description

Additional pictures and text
of native craft found in Sumatra,
Malaya, and adjacent islands.

3 November 1944

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3. Native craft on Waterfront, Padang. 1934.
OSS R 87744
4. Model of outrigger from Enggano Islands. 1932.
OSS R 734270
5. Model from Enggano Islands. 1932. OSS R 734269
6. Fishing boats in the mouth of the No'u River,
Goenoensitoli, Nias Island. Before 1917.
OSS R 707194-Z
7. Native craft near Belawan Harbor, Belawan.
OSS R 28561
8. Native craft at Belawan, 1943. OSS R 762754
9. Photo a. and b. Model of "Prahu Kempang."
Photo c. Model from Djambi. Photos d. and e.
Model from Siak, East Coast, Sumatra. 1932.
OSS R 734268
10. Market canoe on Northeastern shore of Lake Toba.
OSS R 116135
11. Photo a. Model from Palembang. Photo b. Model
of a "Prahu Beloengkang" from Kajoe Agoeng.
Photo c. Model of a "Jukung" from Lampong District.
Photo d. Model of a "Prahu Radjangan", Lampong
District.

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INDONESIA

Local Name of Craft:

"Kolek."

"Kolik."

Type and Use:

Generic name used in the East Indies and Malaya to denote various types of small craft employed generally for sea fishing and transportation which vary in size, hull-form, rig, build, etc. Nearly all of them are plank-built. The smallest can only carry one man and are propelled by a double bladed paddle. The largest ten or more.

"Kolek Kelibat."	Malay Peninsula
"Kolek Pengayer."	Malay Peninsula (Johore)
"Kolek Pulo."	Malay Peninsula (Johore)
"Kolek Lumba."	Malay Peninsula (Singapore)
"Kolek Mantang."	Riouw Archipelago
"Kolek Selat."	Riouw Archipelago
"Kolek Tambang."	Riouw Archipelago
"Kolek Tetap."	Riouw Archipelago

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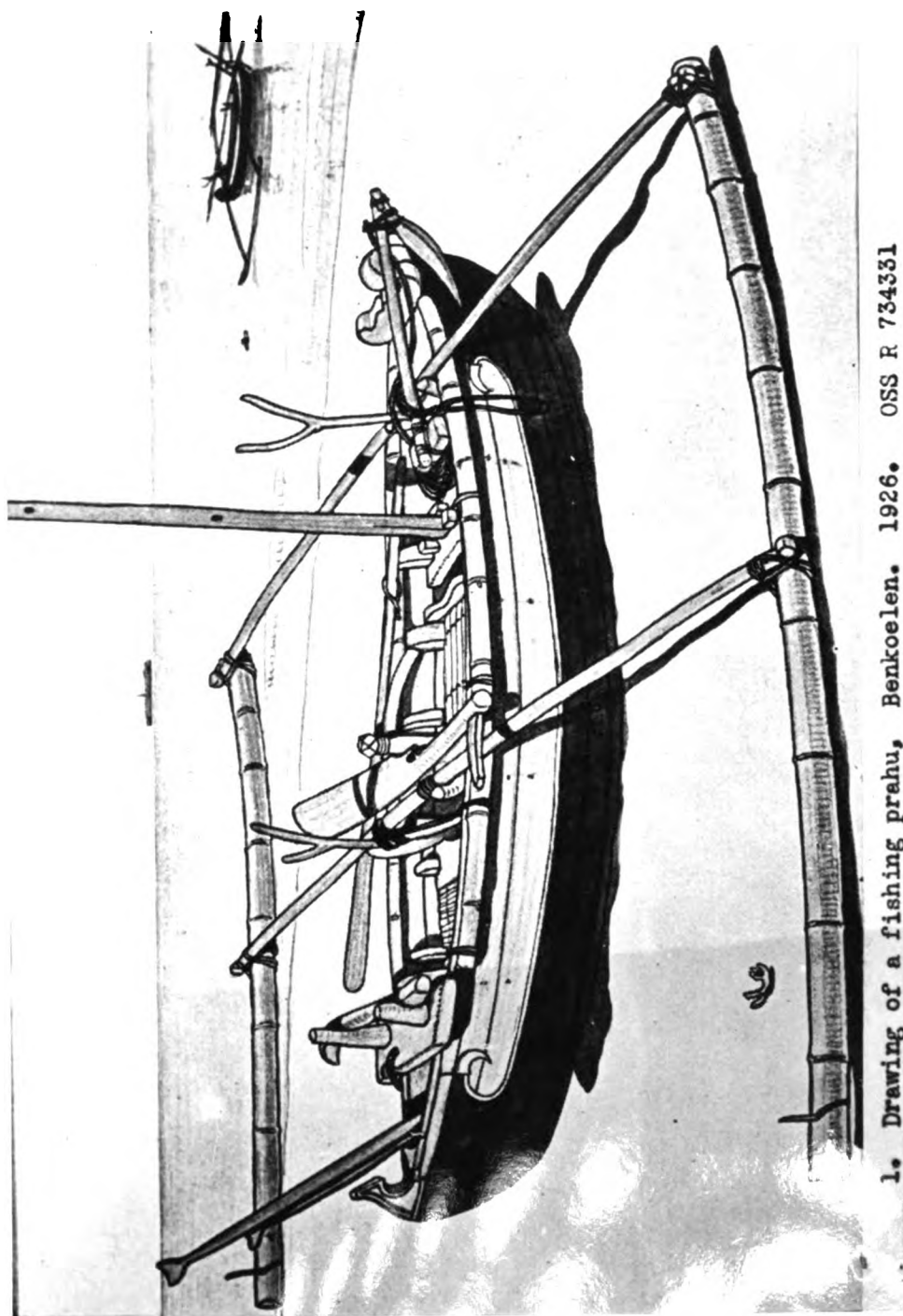
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1. Drawing of a fishing prahu, Benkoelen. 1926. OSS R 734331

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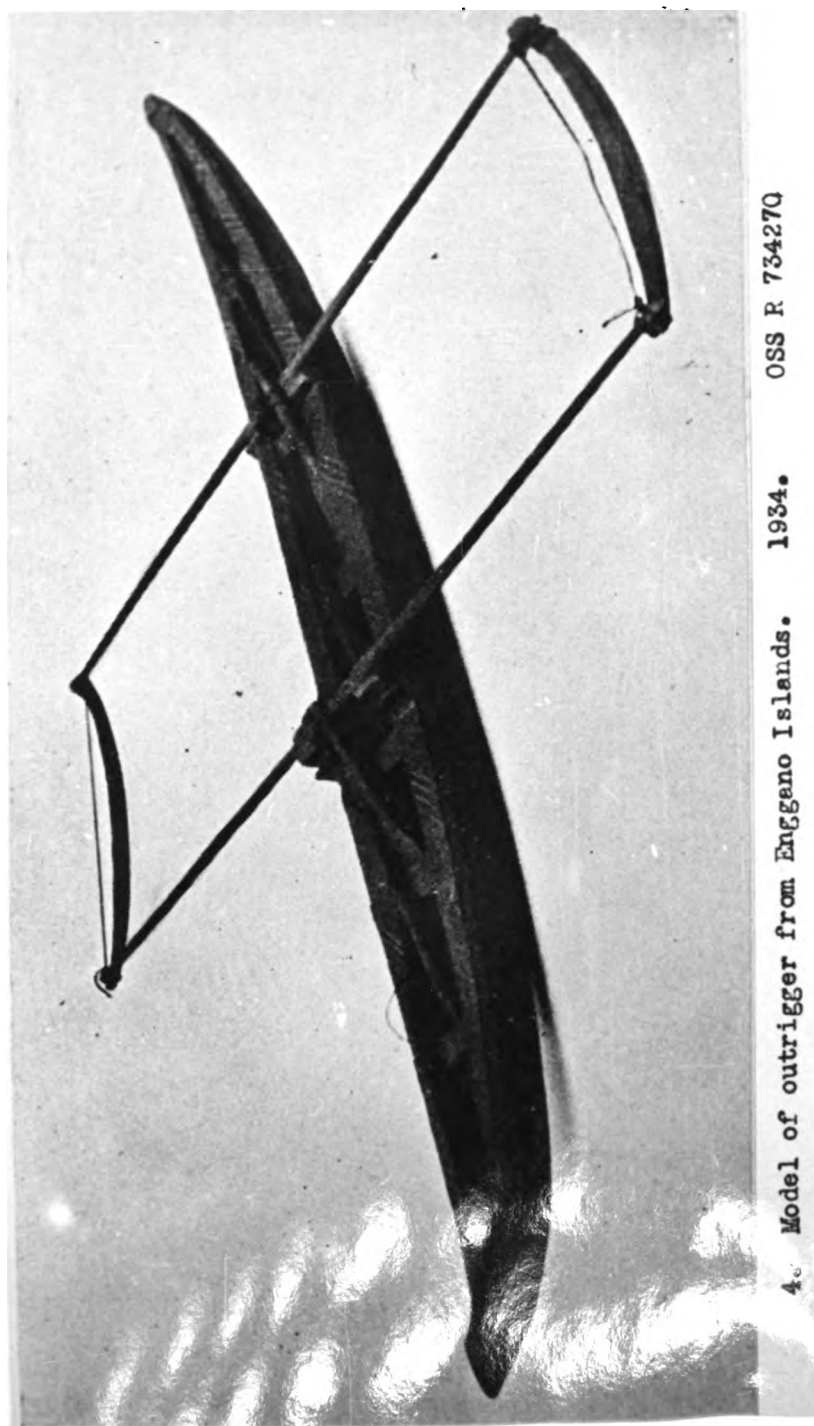
2. Native craft in river harbor, Padang. 1934. OSS R 87761

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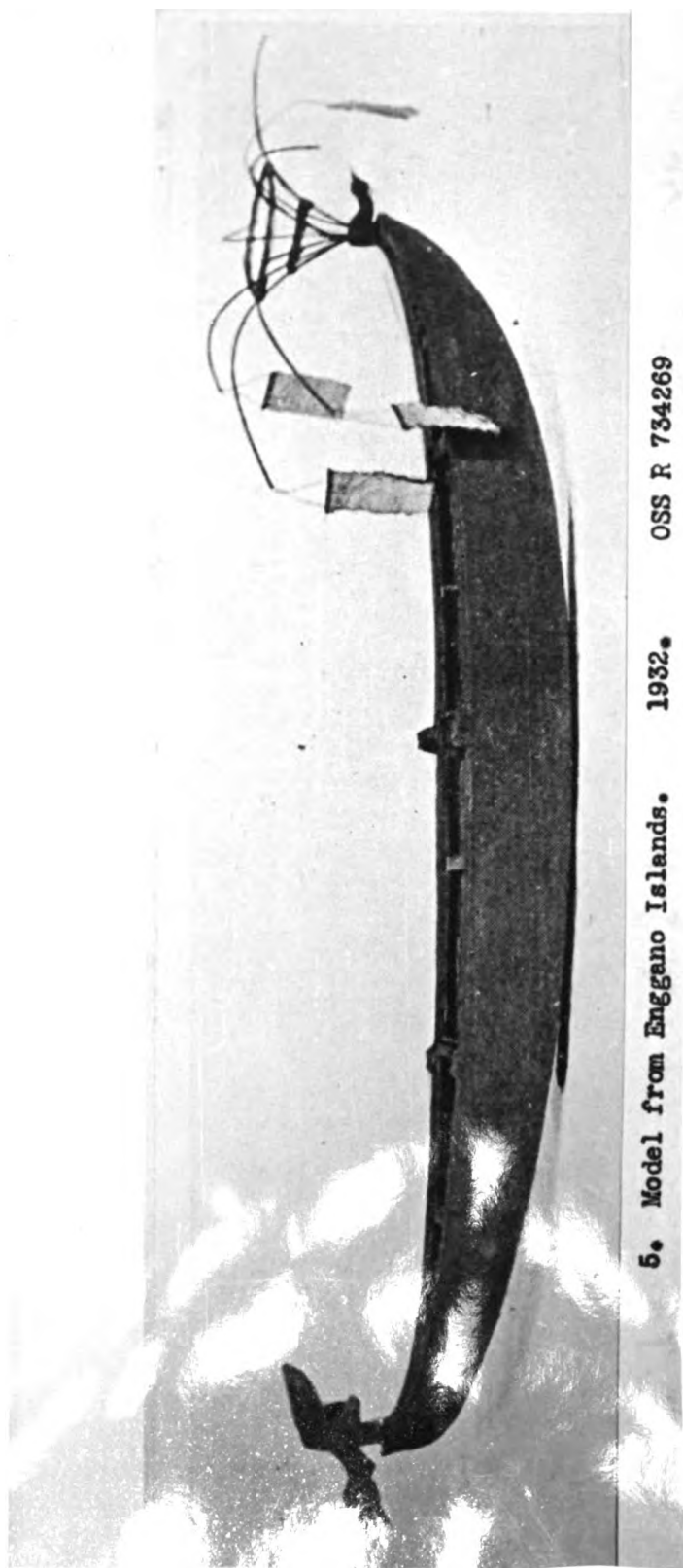
3. Native craft on waterfront, Adang, 1934. OSS R 87744

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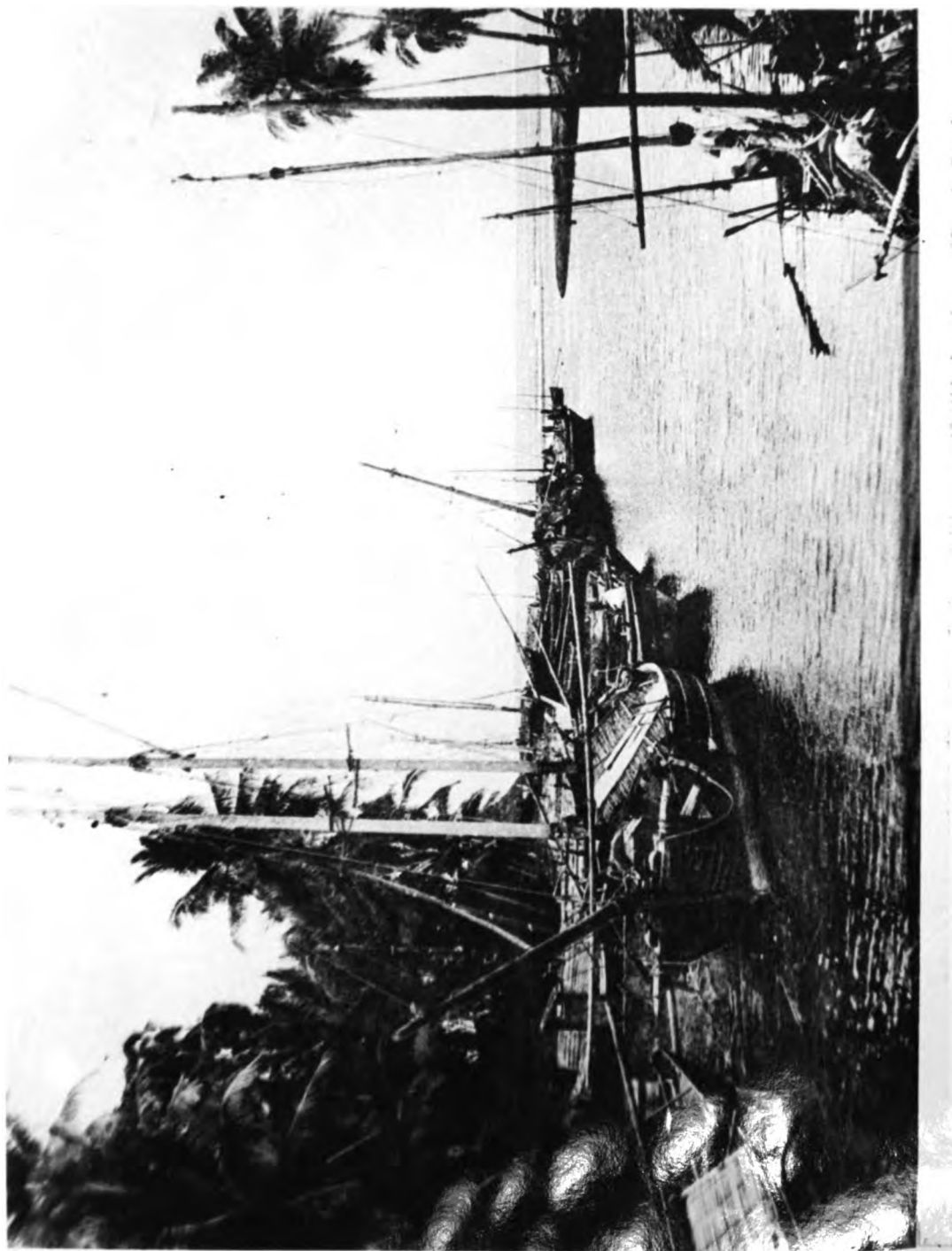


4. Model of outrigger from Enggano Islands. 1934. OSS R 73427Q

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6. Fishing boats in the mouth of the No'u River, Goenoensitoli, Nias Island.
Before 1917. OSS R 707194

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7. Native craft near Belawan Harbor, Belawan. OSS R 28561

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8. Native craft at Belawan. 1943. OSS R 762754

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Photo a.



Photo b.

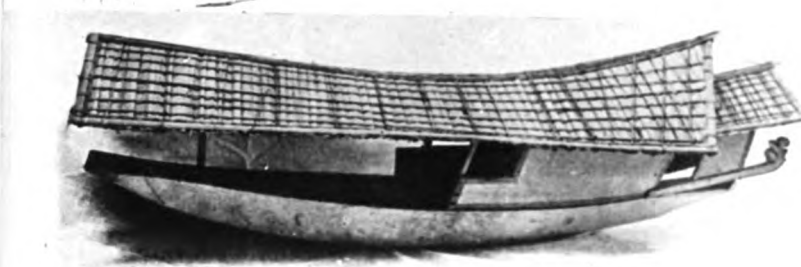


Photo c.



Photo d.



Photo e.

9. Photo a, and b. Model of "Prahu Pampang."
 Photo c. Model from D. 51. Photo d. and e.
 Model from Siak, East Sumatra. 1932.
 OSS R 734268

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10. Market canoe on northeastern shore of Lake Toba. OSS R 116135

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10. Market canoe on northeastern shore of Lake Toba. OSS R 116135

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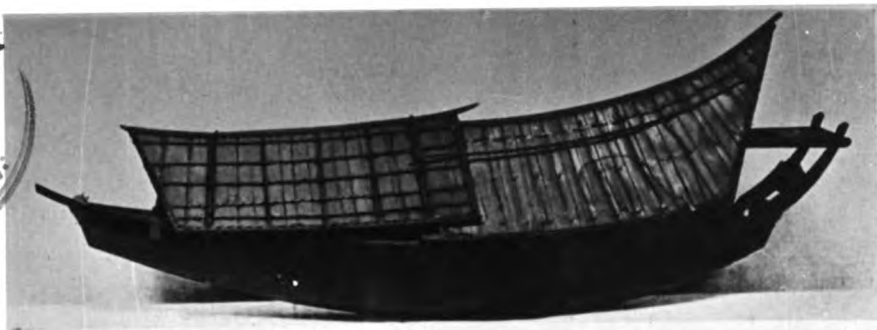


Photo a.



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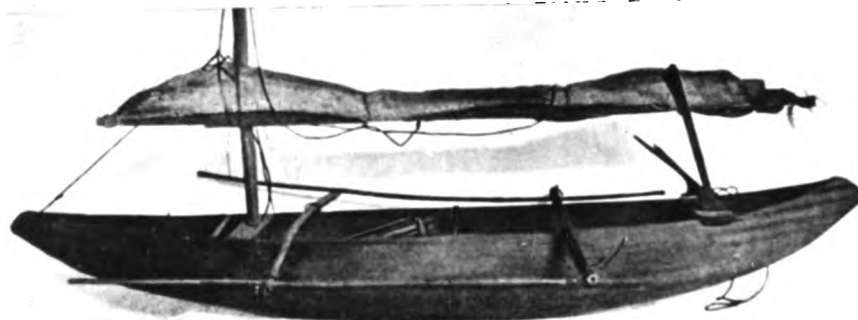


Photo c.



Photo d.

11. Photo a. Model from Palembang. Photo b. Model of a "Prahau Beloengkang" from Kajoe Agoeng. Photo c. Model of a "Jukung" from Lampong District. Photo d. Model of a "Prahau Padjanan" Lampong District. 1932. OSS R 734267

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R & A No. 2327

NATIVE CRAFT IN SOUTH EAST ASIA WATERS

Part III

(BURMA, THAILAND, INDO-CHINA, AND
HAINAN ISLAND)

Description

A study showing the types and distribution of native craft found on the coasts and rivers of Burma, Thailand, Indo-China, and Hainan Island.

27 October 1944

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25. Fishing boat off-shore at Tourane, Annam, Indo-China. Before 1942. OSS R 54069
26. Native craft at Que Tung, Annam, Indo-China. 1937. OSS R 717881
27. Native craft at Lach Trung, Annam, Indo-China. 1939. OSS R 717896
28. Native craft on canal at Thanh Hoa, Annam, Indo-China. 1932. OSS R 68738
29. Native fishing boats in Baie d'Along, Tonking, Indo-China. Before 1937. OSS R 74319
30. "Gay-Bao" or "Gay-Yoo." The long poles at either end hold nets. Baie d'Along, Tonking, Indo-China. 1930. OSS R 68734
31. Native craft in Baie d'Along, Tonking, Indo-China. 1938-39. OSS R 733770
32. Native craft in Baie d'Along, Tonking, Indo-China. 1938-39. OSS R 733771
33. Native craft in Baie d'Along, Tonking, Indo-China. 1932. OSS R 67417

ADDITIONAL PHOTOGRAPHS (cont'd)

- 34. Junk in Baie d'Along, Tonking, Indo-China. OSS R 734593
- 35. Native craft in Baie d'Along, Tonking, Indo-China.
1932. OSS R 66219
- 36. Native craft near Haiphong, Tonking, Indo-China. 1938.
OSS R 729649

SUMMARY

Part III of Native Craft in South East Asia Waters describes small boats along the coasts and rivers of Burma, Thailand, Indo-China, and Hainan Island.

As in Parts I and II, a map showing the general location of the craft described is included. Numbers on the map correspond with the numbers to the left of the craft name in the text. In some cases where the number does not appear, a description was not available. Photographs and plans have been included wherever possible. A photographic supplement is also included. If any of these pictures are satisfactorily identified, they should be added to the text.

NATIVE BOATS OF BURMA, THAILAND, INDO-CHINA AND HAINAN

NUMBERS CORRESPOND TO THOSE IN TEXT.



DATA	QUAN.	QUAL.	LOC.
BOATS	--	--	OA

Coverage of Data

C - Complete
I - Incomplete

Location of Data

A - Accurate
NE - Not Entirely Accurate
OA - Only Approx. Accurate

Quantitative & Qualitative Data

R - Reliable
GR - Generally Reliable
U - Unreliable

QUANTITATIVE DATA The letters R, GR, and U are an estimate of the reliability of the map's quantitative data, the data which are measurable, including economic or population statistics, hypsometric data, the width of roads, gauges of railroads, etc.

QUALITATIVE DATA The letters R, GR, and U are an estimate of the reliability of the map's qualitative data which shows the types of road surfaces, character of beaches, types of terrain, etc.

COVERAGE The letters C and I in combination with R, GR, or U are an estimate of the degree of completeness of quantitative and qualitative data.

LOCATIONAL DATA The letters A, NE, and OA are estimates of the plotted accuracy of data within the limits of scale and width of line.

RA, OSS

General Description

Local Name of Craft:

"Sampan."

Type and Use:

A Generic term used in South East Asia, China, and Japan to denote a small open boat or skiff.

The word "Sampan" is said to be a corruption of "Shan-Pan" which in Chinese means "Three Planks."

The Chinese Sampan is a general utility boat used in sheltered waters as passenger ferry, or also for the transportation of goods. The seagoing sampan is used for fishing.

It is a flat bottomed boat, wedge shaped in plan, of considerable width in proportion to length, with low transom bow and rising transom stern with pronounced rake. The after end runs out into two upward curving timbers which project well beyond the transom. There is no keel. Rowing sampans are propelled with two short oars handled by one man, the latter facing the bow. The rowlocks consist of a piece of twisted rattan. The Chinese sailing sampan is rigged with one mast and battened lug-sail. A dagger board is provided forward and in conjunction with a deep narrow rudder enables these craft to sail fairly close to the wind. It has

RESTRICTED

General Description

Local Name of Craft:

"Sampan." (continued)

a maximum length of about 30 feet and a breadth of 8 to 10 feet at the stern.

The Japanese Sampan is of a totally different type.

It is built with long raking sharp stem, vertical square stern and broad flat keel of great thickness. The smaller craft are propelled by a single scull rigged out on the port side near the stern. More sculls are used on both sides as the dimensions increase. Sailing sampans are rigged with one two or three masts and square sails. A large number are now fitted with motor and screw propulsion.

In the East Indies the word Sampan is with few exceptions used to denote a plank-built boat in contrast to the dugout canoe. Some of these are provided with outriggers. In most instances they are rigged with one mast and a four-sided or a triangular sail. Some are steered with a center-line rudder, others a quarter rudder.

The Burmese Sampan is a rowboat with a length of about 15 feet. It has a sharp up-curving bow

General Description

Local Name of Craft:

"Sampen." (continued)

and is mostly used for the transportation of passengers.

A waterway extends from bow to stern on each side.

RESTRICTED

B U R M A

(Arakan)

Local Name of Craft:

(1) "Kistie."

Type and Use:

A sailing and rowing barge used for transportation of unhusked rice (paddy) in sheltered waters. Usually found on the estuary of the Neaf River and around Cheduba Island.

Constructional and other Features:

The hull is composed of a solid dugout bottom with sides made of planks sewn together with cane and caulked with rushes. It has a transom bow and sharp stern with rising end piece. A thatched roofing is provided aft. A quarter rudder is used for steering.

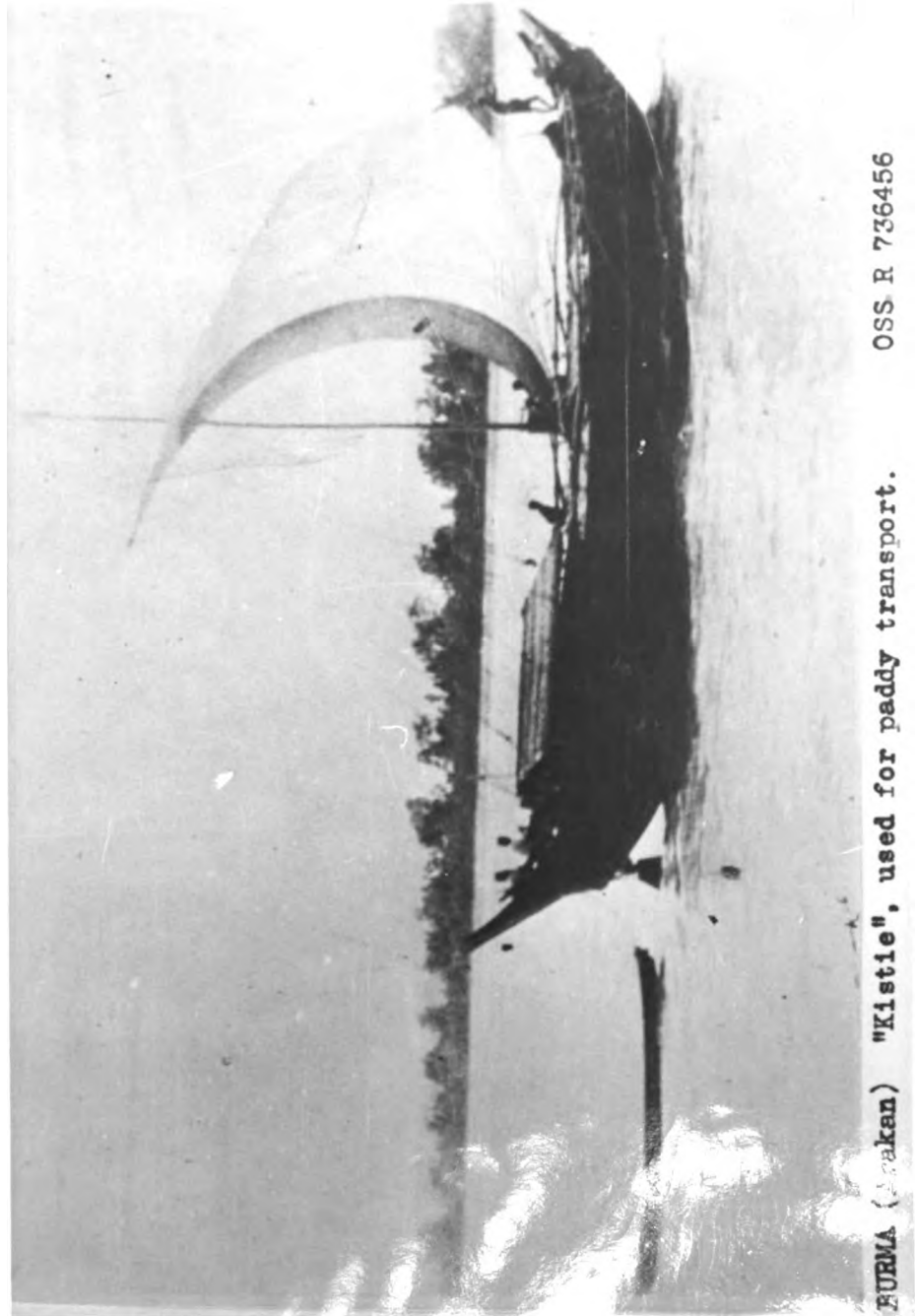
Rig:

One mast stepped amidships and rigged with a square shaped sail. It is mostly rowed by a crew of 20 oarsmen.

Dimensions and capacity:

Length 35 to 40 feet. Maximum carrying capacity 20 tons.

Notes:



OSS R 736456

BUENA (Lakan) "Kistie", used for paddy transport.

B U R M A

(Arakan)

Local Name of Craft:

Unknown

(Sandoway Schooner)

Type and Use:

Sailing craft used for transportation on the Coast
of Arakan between Akyab and Bassein.

Constructional and other Features:

Hull of Western design with straight stem, elliptical
stern with counter, fore and aft deck. Dockhouse
aft. One hatch forward of the mainmast.

Rig:

Two masts with battened lugsail of Chinese type.
The foremast is stepped close to the stem, the
mainmast approximately amidships. No headsails.

Dimensions and capacity:

Length 50 to 60 feet. Capacity 60 to 70 tons.

Crew 6.

Notes:

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(2) "Ke-do-Lay."

Type and Use:

A boat used as ferry for passengers and goods. The bottom is made of a single log with planked topsides. The after end is covered up for a length of 5 to 6 feet by a rounded head of thatch and bamboo. The steersman sits at the extreme stern end and steers with a long paddle. The boat is propelled by two rowers.

Notes:

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(3) "Laung-Zet."

Type and Use:

A Burmese river craft employed for transportation of goods on the Irrawaddy River mostly between Prome and Mandalay. They convey mostly produce from Pegu to Burma proper: dried fish, salt, rice, imported goods. They bring down cutch, lacquer.

Constructional and other Features:

The bow is low with beautiful hollow lines, the stern rises high above water, and below, the run is drawn out fine to an edge. The narrow bottom is flat and is fixed to the side planking of the lower hull by ribs. The planks are 2 to 3 inches thick and 10. to 12 inches broad. They are held together by nails driven obliquely from recesses near the seams which are luted with dammar and strengthened with ribs. The bow and stern superstructures are strengthened by iron dogs along the seams. A quarter rudder is used for steering.

Rig:

The rig consists of a bipod or ladder mast straddling

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(3) "Laung-Zat." (cont'd)

the boat. The two poles are lashed together at the head and the opened heels are stepped close to the gunwale on either side. A row of transverse struts runs up between them like the rungs of a ladder. The yard is made up of two light very long bamboo poles lashed heel to heel with an overlap of a few feet at the bunt. The yard arms are topped up by a pair of lifts till the yard is bent like an un-turned bow. A square shaped sail in four or more sections is bent to the yard; each section is triced up by inner and outer halyards and they can be taken in one by one according to the strength of the wind. A topmast in the form of a single bamboo pole is carried above the ladder mast and used for setting a square headed topsail cut with a great spread but small hoist. The topsail yard is merely a repetition of the lower yard on a smaller scale. The sail made of light cotton is hoisted to it by three halyards; one being at the bunt and the other two at the yardarms. It is sheeted home about two-thirds or three-fourths of the length of the lower yard out. Sails are used

B U R M A

(Lower Irrawaddy River)

Local Name of Craft: (3) "Laung-Zat." (cont'd)

only with a free wind when sailing upriver with the summer monsoon breeze. When the boat has reached her destination the whole rig is struck and dismantled for the return trip downstream under oars.

Dimensions:

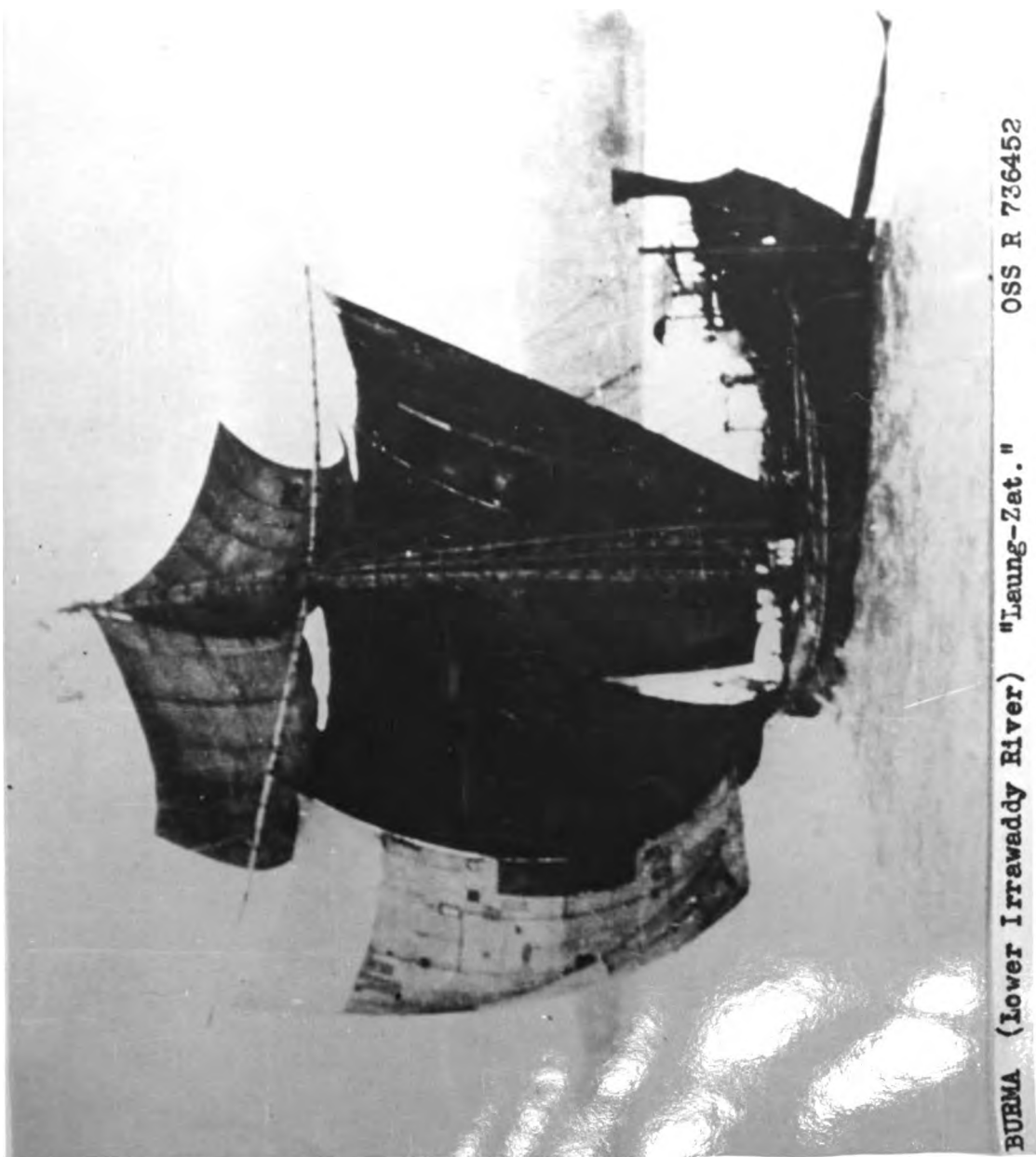
Length 50 to 75 feet.

References:

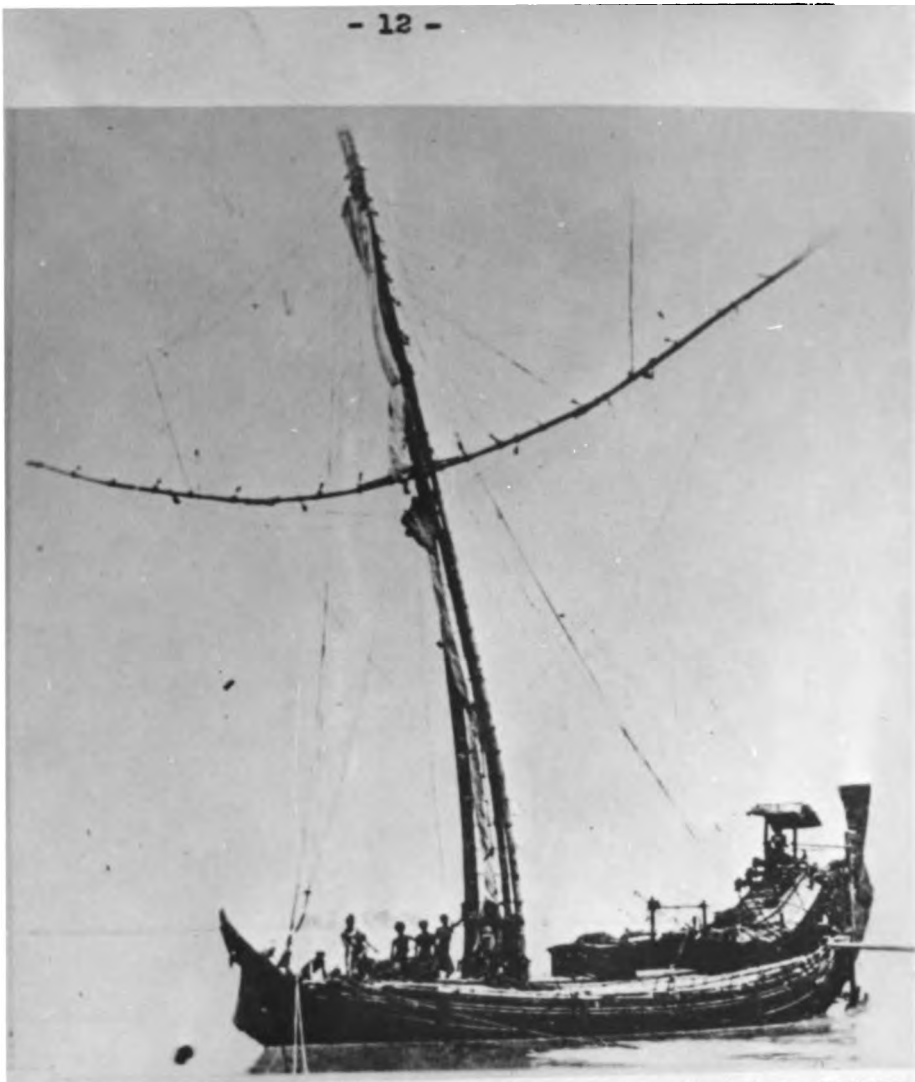
Ferrers, M. B., Burma. London, 1900.

Ballard, A. G., Mariner's Mirror, vol 11, 1925.

Notes:



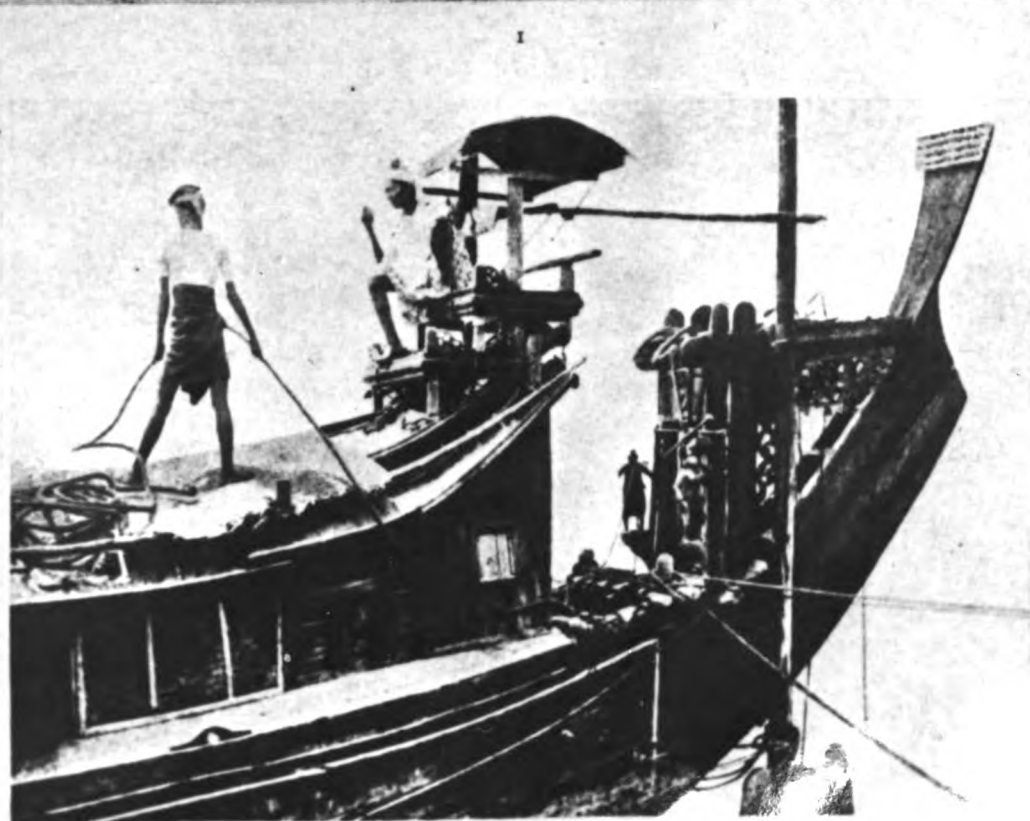
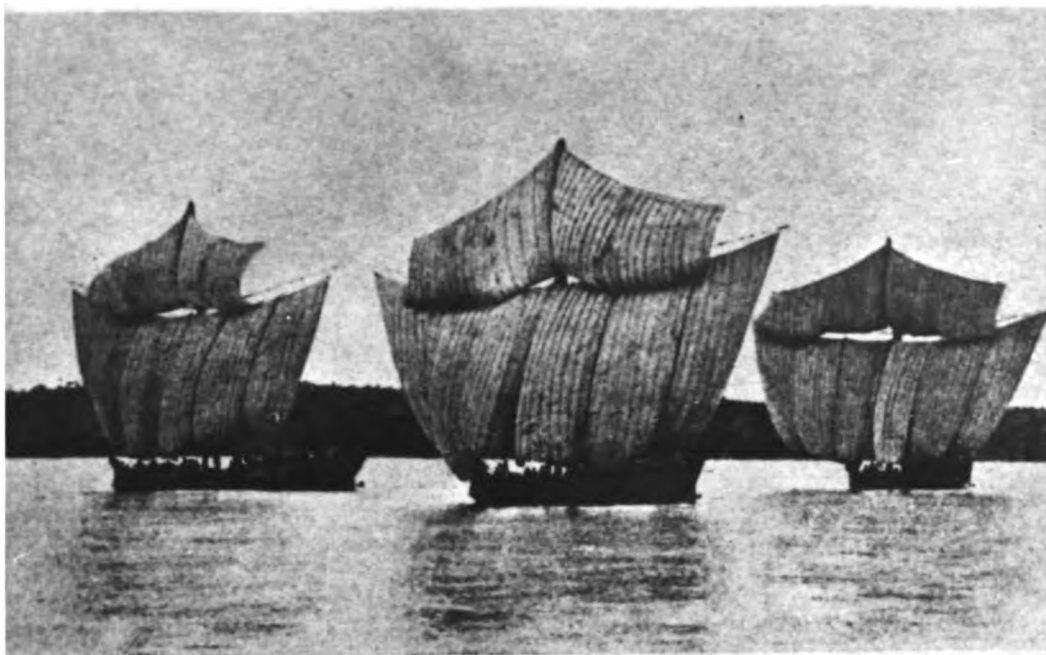
BUENA (Lower Irrawaddy River) "Laung-Zat." OSS R 736452



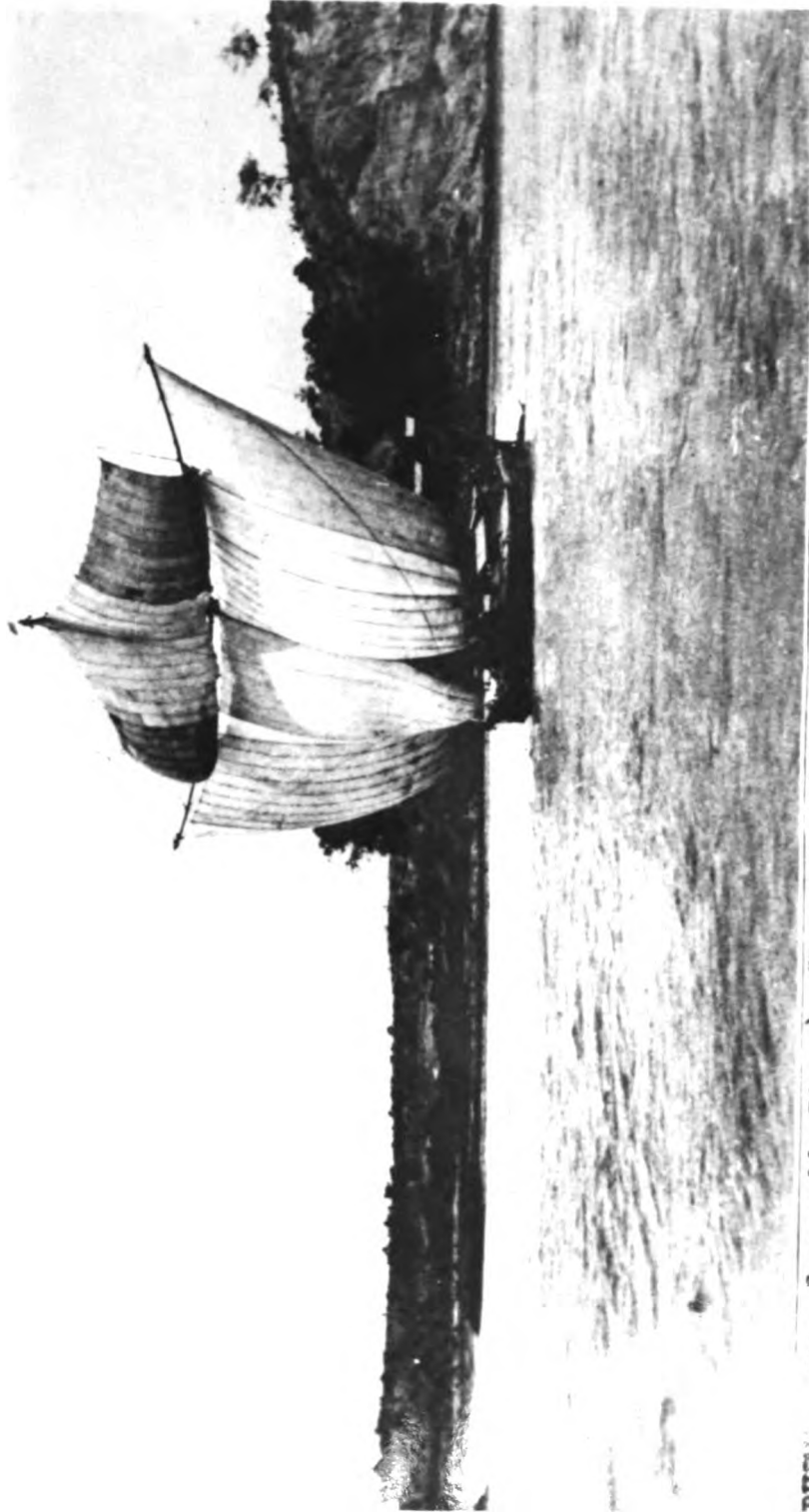
BURMA (Lower Irrawaddy River) "Laung-Zat." OSS R 736453



**BURMA (Lower Irrawaddy River) "Laung-Zat." -Harri
Mirror, 1926. OSS R 736453**



BURMA (Lower Irrawaddy River) "Laung-ka-t." Mariner
Mirror, 1926. OSS 62884



BURMA (Irrawaddy River) "Laung-Zat." -after Ferrars

OSS R 762885

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(4) "Peingaw."

"Panegaw."

Type and Use:

A shallow draft river boat with an curving bow and stern used in Burma for the transportation of mineral oil in bulk on the Irrawaddy.

Constructional and other Features:

The hull is flat bottomed and punt-like. Two long teak logs form the center of the lower hull, with several thick planks intervening for the flat bottom. Two strakes of planking above complete the sides, the whole structure being held together by nails and ribs. The planks are wide in the middle and tapering from stem to stern like the staves of a cask. There are outboard bamboo galleries for the crew to row and pole, which allow of the ~~deck~~house being carried from end to end. In tidal and salt waters the boats are beached once a month for breaming the bottom.

Rig:

The rig is similar to that of the "Launa-Zat" and consists of a bipod mast with large square sail made of cotton.

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(1) "Peingow." (cont'd)

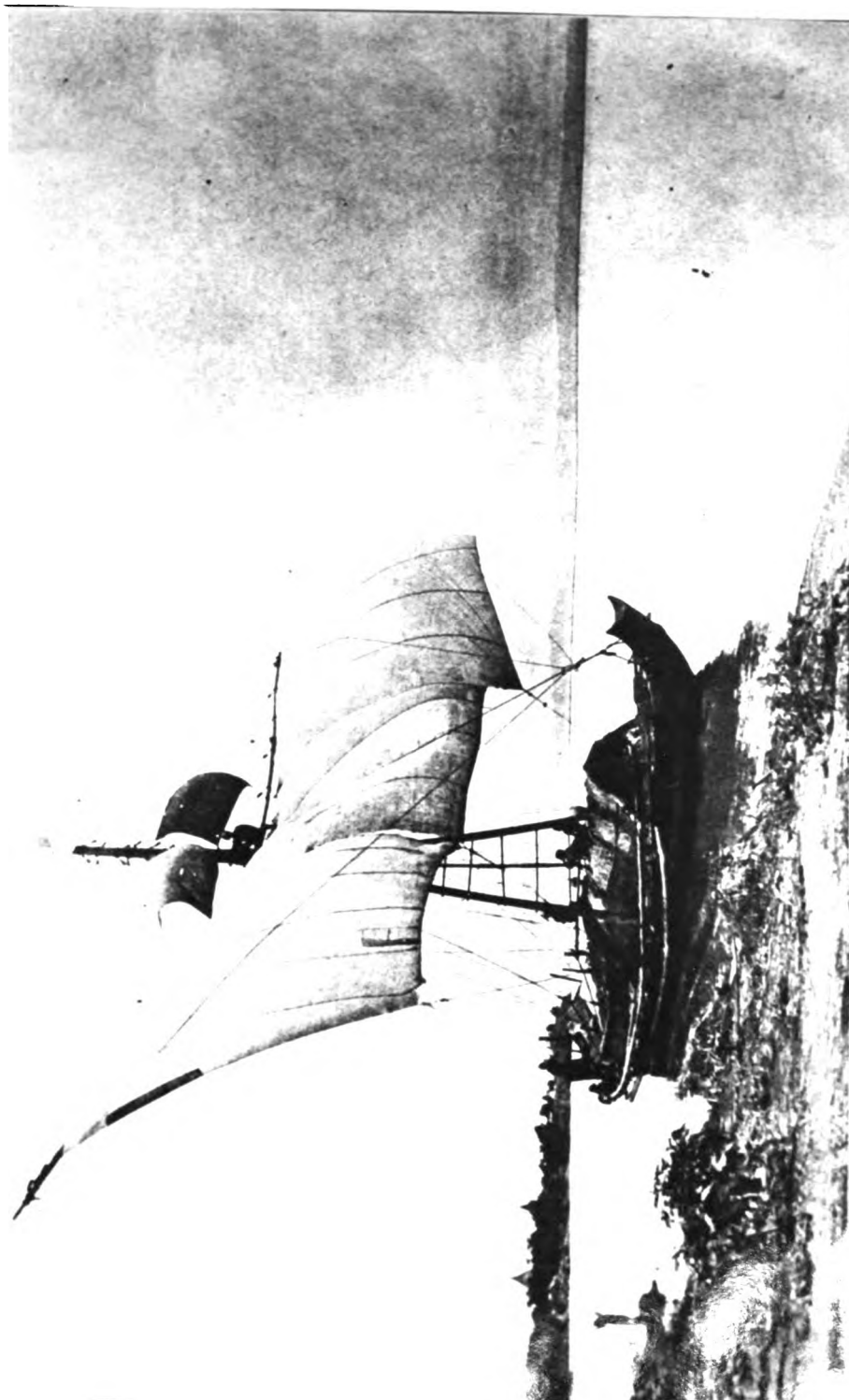
Small square topsails set flying are occasionally seen above the yard. Each leg of the mast is tied to the other by wooden rungs which form a ladder for going aloft. Above the yard the two spars run into one forming the topmast. The yard is a bamboo or line of spliced bamboos of enormous length and is suspended from the masthead by numerous lifts or halliards so as to curve upward in an inverted bow. A rope runs along this from which the huge sail is suspended, running on rings, like a curtain, outward both ways from the center. When not under sail the boat is propelled by 6 or 8 rowers.

References:

Ferrers, M. B., Burma, London, 1900.

British-Burma Gazetteer, Rangoon, 1880.

Notes:



BURMA, Irrawaddy River) "Peingaw." - after Ferrars

OSS R 762886

B U R M A

(Lower Irrawaddy River)

Local Name of Craft:

(5) "Laung-Go."

Type and Use:

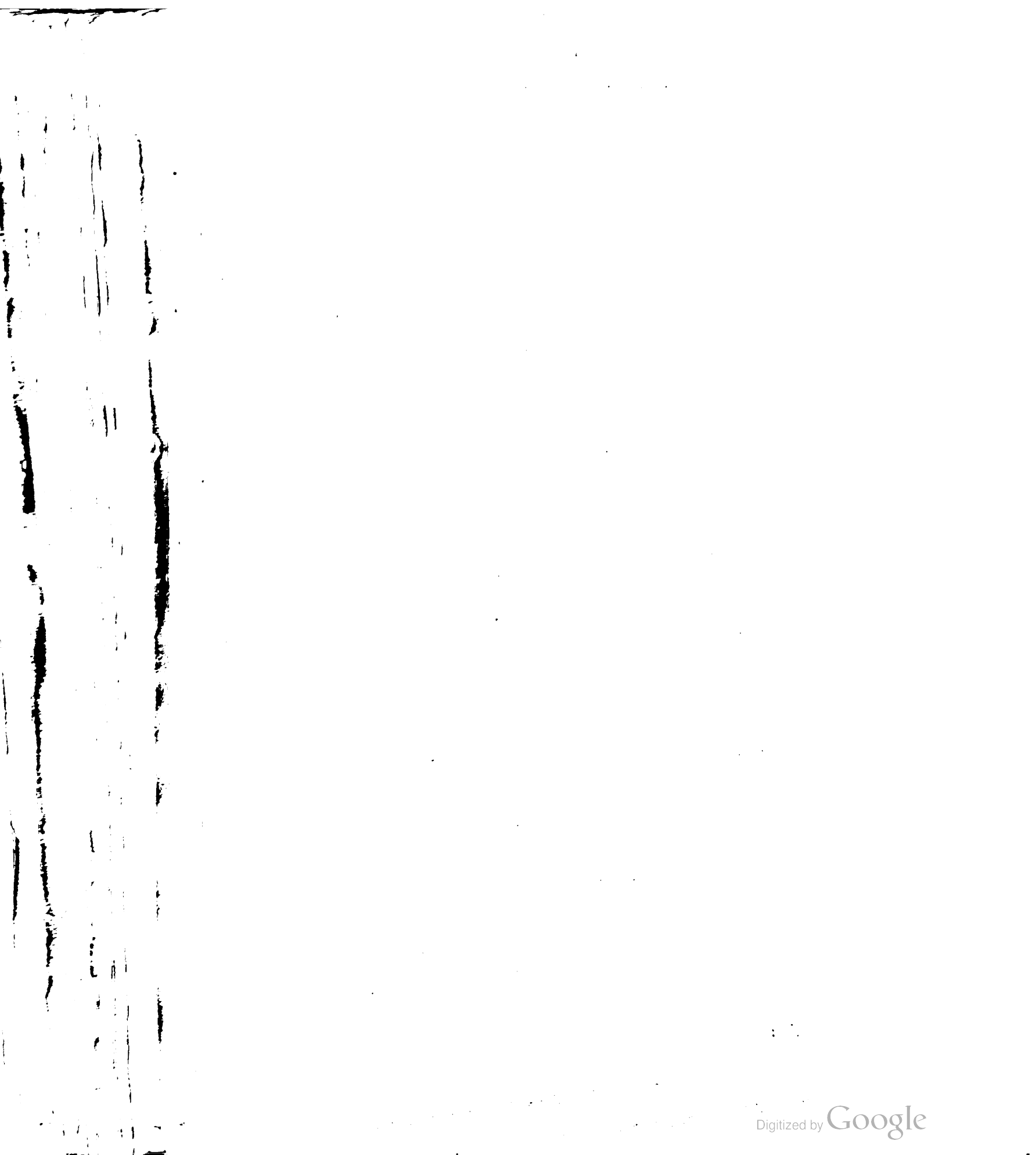
A small river craft used for the transportation of goods and persons in Burma. It is particularly suited to local conditions on account of the ease of getting off shoals or for beaching.

Constructional and other Features:

The hull is made of a dugout base to the sides of which a stroke of planking is added. The ends are left solid for a length of 3 to 4 feet and curve upward, especially at the after end. A balance log or gunwale spar 10 or 11 inches in diameter and made of bamboo is lashed on each side of the boat at water level to give more buoyancy and better stability. The helmsman sits on a high chair and steers with a long paddle slung from the quarter.

Rig:

The smaller craft are rigged with a square shaped sail stretching between two bamboo poles 10 to 14 feet long, standing up in the form of a V with apex down.



B U R M A

(Lower Irrawaddy River)

Local Name of Craft: (5) "Laung-Go." (cont'd)

The larger boats have a mast and two half sails bent to rings which run on the yard, being hauled out by outhauls through a yard arm block and leading to the mast head. The "Laung-Go" is rowed with the stream by three or four sweeps. It is poled upstream.

Dimensions (average) and capacity:

Average length 30 to 54 feet.

Capacity 10 to 40 tons.

Crew 3 to 5.

References:

Malcom, H., Travels in South East Asia.

Woods, E. A., Mariner's Mirror, vol XI, 1925.

Notes:



BURMA (Lower Irrawaddy River) "Laung-Go."
after Woods **OSS R 762887**

100

B U R M A

(Irrawaddy River Delta)

Local Name of Craft:

(6) "Laung."

Type and Use:

A racing canoe with slightly peaked bow and stern made of one large log from 30 to 60 feet long with sides raised by a washstrake about 10 inches high. It is paddled by a crew of 25 to 40 men according to size.

Notes:

B U R M A

(Irrawaddy River Delta)

Local Name of Craft:

(7) "Hpyatasing."

(Paddy-Gig)

Type and Use:

A sailing barge used on tidal river waters and estuaries for the transportation of paddy (unhusked rice) in bulk from the growing districts to the mills.

Constructional and other Features:

Flank-built hull with straight vertical stem, square stern with outboard rudder. Decked ends with narrow waterways (4") amidships.

Rig:

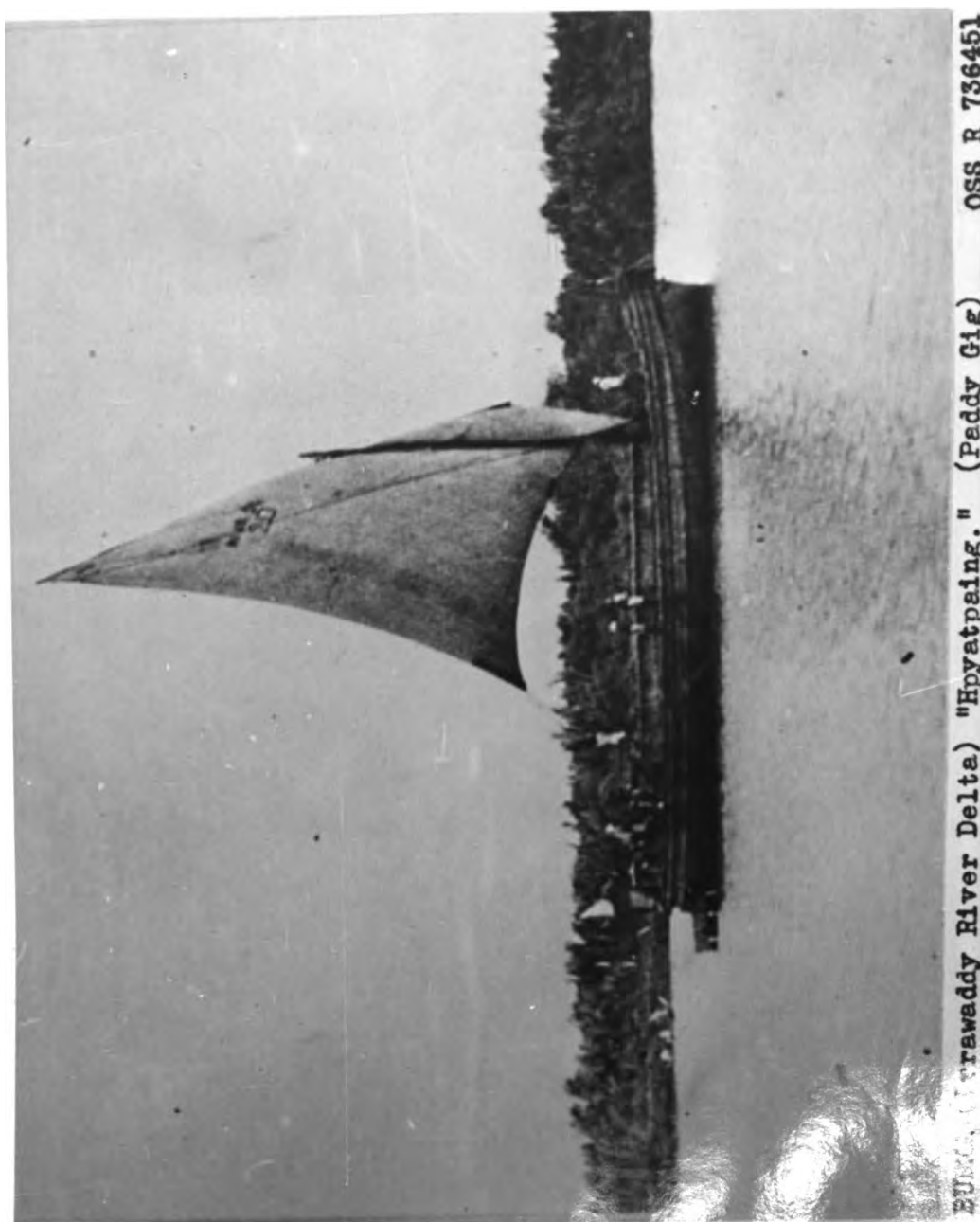
One pole mast stepped just abaft the foredeck and high peaked lug sail.

Dimensions and capacity:

Length 60 to 80 feet. Capacity about 40 tons.

Crew 8.

Notes:



EUROPEAN RIVER DELTA) "Hoyatpaing." (Paddy Gig) OSS R 736451

B U R M A

(Mergui Archipelago)

Local Name of Craft:

(8) "Kabang."

"Kebang."

Type and Use:

A dugout canoe employed by the Selung people for fishing and transportation.

Constructional and other Features:

The hull consists of a hollowed log of Thingan wood. The sides are raised by a watertight wash-strake made of palm leaf stems tightly fitted together caulked with palm hemp and held in place by wooden uprights. The bow and stern are of crescent shape, the lower part serving as a step when boarding or leaving the boat, which is never attempted from the sides owing to the weakness of the palm-stem washstrake. Part of the boat is decked with split bamboos tied together. At the after end there is a crude awning made of palm leaves. This awning can be rolled up when not required and is then kept at the side of the boat. Amidships there is a roughly hewn thwart with a hole burnt out through which the mast is stepped.

B U R M A

(Mergui Archipelago)

Local Name of Craft: (8) "Kabang." (cont'd)

Rig:

The rig consists of a mast and large quadrilateral sail with yard and boom. The mast is a pole with a fork at the top over which the halyards made of plaited grass are slipped. The yard is held by a sling fastened at each end of the spar so as to prevent either end from dipping. The sail, made of palm leaves, is divided in four sections. A rectangular piece of palm leafing is made by threading together leaves cut to shape. This shaped piece is then securely fastened to the yard. At the bottom edge of this section a bamboo soline (or batten) is attached and on this soline the next rectangular section is fixed. A strengthening cord, of grass, is passed down the middle of the sail and secured to each sectional soline. When not under sail the canoe is propelled by roughly fashioned sweeps in the same way as a Venetian gondole - two men standing up, one in the bow and one in the stern. The rowlocks consist of a branch with natural fork into which the loom of the sweep rests.

B U R M A

(Mergui Archipelago)

Local Name of Craft: (8) "Kebang." (cont'd)

Dimensions:

Length 25 to 33 feet. Breadth 4.5 to 5.2 feet.

Depth 3.2 feet.

References:

Ainsworth, L., Merchant Venturer Among Sea Gypsies.

London, 1930.

Iapicque, M. L. "Les habitants des îles Mergui. Societe
d'Anthropologie de Paris." Bulletin, vol V. 1894.

White, W. G., The Sea Gypsies of Malaya. London

Fischer, A., "Die Selungs im Mergui Archipelago."

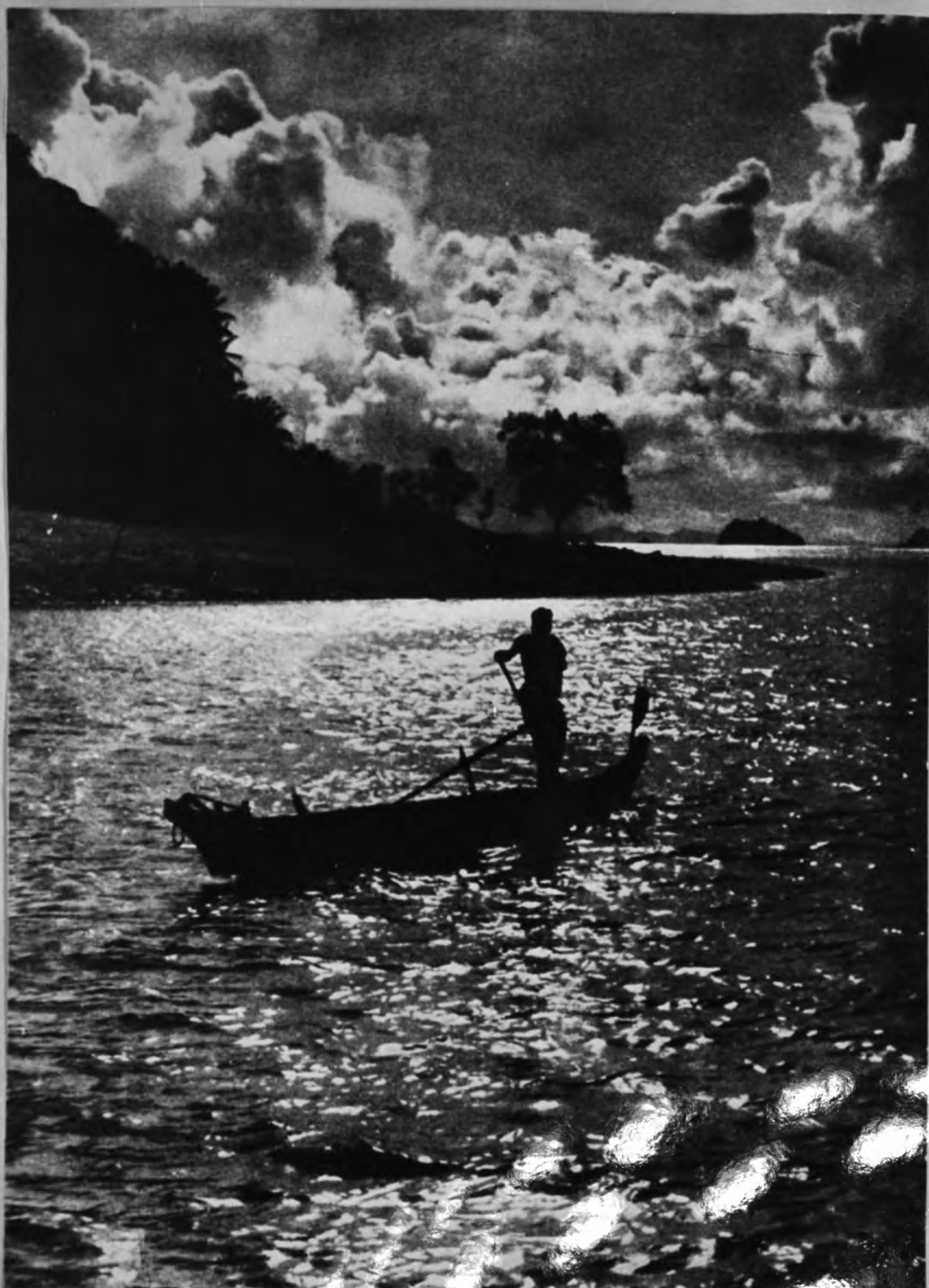
Zeitschrift fur Ethnologie. vol. 35, 1903.

Notes:

Some of these craft are also used by the Mawken as house-
boats in which case they are covered from bow to stern
with a thatched roofing.



BUKMA (Mergui Archipelago) "Kebang" - after Bernatzik
OSS R 762888



BURMA (Mergui Archipelago) "Kabang." - after Benatzik 62889

B U R M A

(Mergui Archipelago)

Local Name of Craft: "Sakona." (not on map)

Type and Use:

A seagoing sailing craft used for transportation in the Mergui Archipelago and along the Coast of Tenasserim.

Constructional and other Features:

The hull is long and narrow with a V like section built upward from the lower solid floor by strakes fitted inside one another, a ribband being run round outside the joints. There is usually a small shelter abaft the mainmast. The deck is portable. The boats are generally indifferently ballasted and have very little initial stability. The quarter rudder is hoisted when lying on the mud and lowered when under way until it draws 3 to 4 feet of water.

Rig:

The rig consists of two pole masts, one right in the eyes with a slight rake forward and one amidships. They set two light square headed lugsails as near as possible the same size.

B U R M A

(Mergui Archipelago)

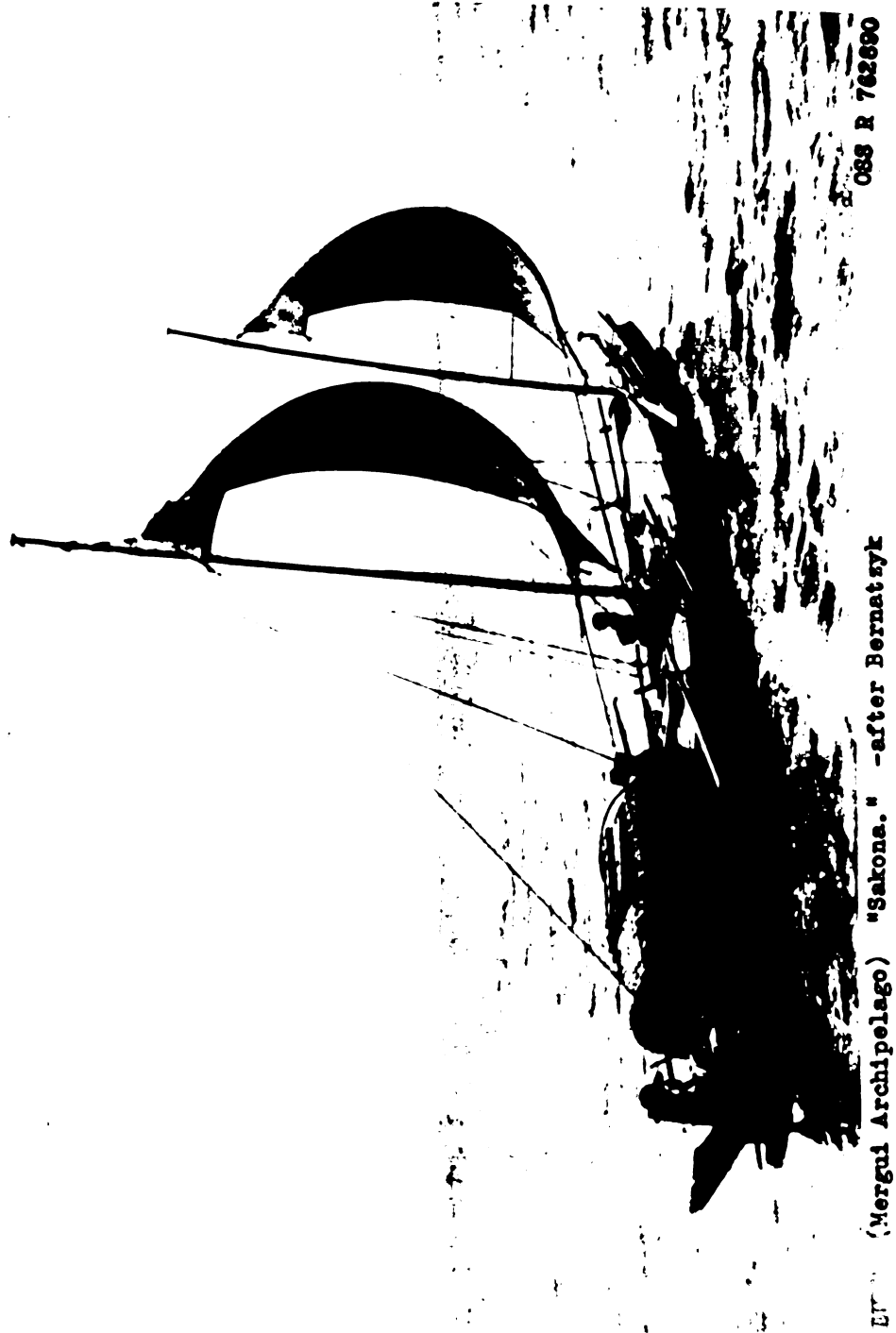
Local Name of Craft: "Sakone." (not on map)(cont'd)

References:

Smyth, H. W., "Notes on a Journey to Some of the South
Western Provinces of Siam." Geographical Journal, vol. 6,
London, 1895.

Notes:





B U R M A

Local Name of Craft:

"Sa-cho." (not on map)

"Sadaw."

Type and Use:

A small round bottom planked boat with a length of 15 to 30 feet seen in riverine villages all over Burma. According to some writers the term "Sadaw" refers also to a dugout canoe from 6 to 15 feet length and 2 to 2½ feet breadth.

Notes:

B U R M A

Local Name of Craft:

"Lundwin." (not on map)

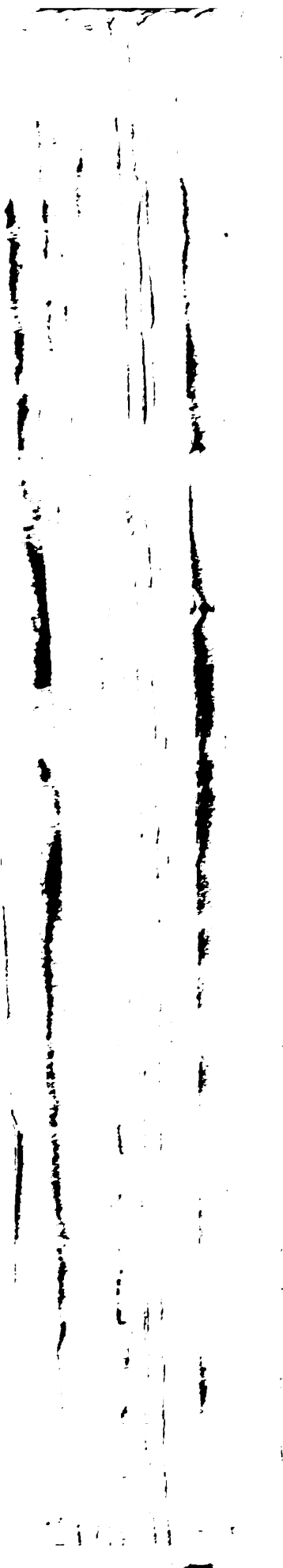
Type and Use:

A large size dugout with washstrakes, pronounced overhang at stern, and long thatched roofing over the midship section. Used for fishing on rivers and estuaries, also for local transportation of small loads of country produce.

Dimensions and Capacity:

Length 20 to 35 feet. Draft 18 inches. Capacity about $1\frac{1}{2}$ tons. Crew 3.

Notes:





OSS R 736460

USS R 736460

THAILAND

(West Coast)

Local Name of Craft:

(9) "Sakot."

(Orang-Laut Boat)

Type and Use:

A plank-built boat with low bow and high stern used for transportation on the West Coast of the Thailand Peninsula. It is rigged with one mast and horizontally seamed dipping lug-sail. The mast has a forward rake and is stayed by a pair of shrouds on each side. The luff of the sail is set taut by a snar-bowline set in a cringle halfway up. There is a washstroke of lashed cane above the gunwale.

References:

Smyth, W. H., "Notes on a Journey in the South West Provinces of Siam." Geographical Journal, vol. V, London, 1895.

Notes:

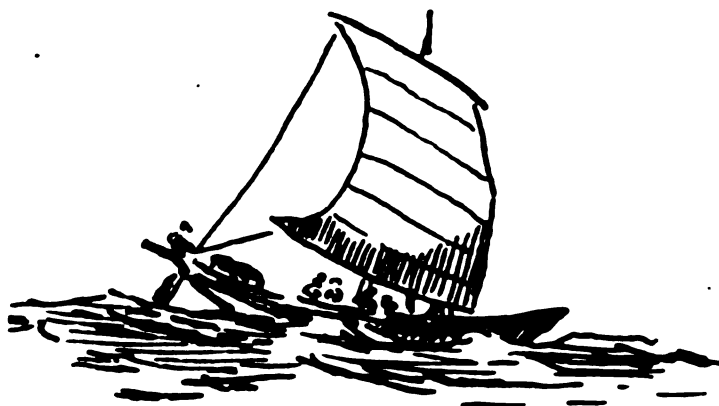


FIG. 1.



FIG. 2.

ORANG LAUT BOAT (FIG. 1) FROM LEE SIDE,
(FIG. 2) AND WEATHER SIDE.

THAILAND (West Coast) "Sakota."
after H. W. Smyth 088 R 732891

THAILAND

(Gulf of Siam)

Local Name of Craft: (10) "Rua-Ta."

Type and Use:

A three-masted trading coaster with large carrying capacity of the Gulf of Siam. It is said to be of Cambodian origin.

Constructional and other Features:

It has brightly painted bow and stern galleries.

Rig:

Three masts with lugsails. The mizzen is stepped over the counter.

Dimensions:

Largest type up to 60 feet in length.

References:

Smyth, H. W., Mast and Sail in Europe and Asia.
London, 1929.

Notes:

THAILAND

(Gulf of Siam)

Local Name of Craft: (11) "Rua-Pet."

Type and Use:

A half-decked boat from the Gulf of Siam. The smaller craft are used for fishing, the larger for transportation as coasters. Most of these boats are built at the various small ports along the eastern shores of the Gulf.

Constructional and other Features:

The hull is built with rockered keel, rounded forefoot with overhanging bows and flat stem. The stern is sharp pointed with curved sternpost. A light non-watertight decking extends from stem to mainmast. Aft this a thatched watertight roofing made of palm leaves and bamboo laths is built, and extends to within 6 or 8 feet of the stern. Underneath are the hold and cabin. The open space at the stern is used as a cockpit for the helmsman. A hardwood called "Ton-Takien" and found in the forests of Indo-China is used for the keel stem and stern-post. It is impervious to the attacks of Teredo. Pegs of

RESTRICTED

THAILAND

(Gulf of Siam)

Local Name of Craft:

(11) "Rue-Pet." (cont'd)

hardredwood are used for fastenings. The planking is made of "Thingen" wood.

Rig:

The rig consists of one or two masts according to size of boat, which carry sharp-peaked standing lug-sails with boom. The foremast, a light and short spar, is stepped right up in the eyes of the boat and has no standing rigging. The mainmast stepped a little forward of amidships, has a pair of rattan shrouds. The sails are made of rectangular pieces of palm-leaf matting. They are furled or reefed by rolling round the boom with the help of a wooden pin used as a lever. Sweeps or long oars are also used.

Dimensions:

The boats vary considerably in size. The smaller ones used for fishing are generally about 20 feet long, while the larger trading craft have a length of 50 feet or more.

THAILAND

(Gulf of Siam)

Local Name of Craft: (11) "Rua-Pet." (cont'd)

Particulars of a trading boat:

Length over all 50 feet. Breadth 15 feet.

Depth 7 feet, 6 inches.

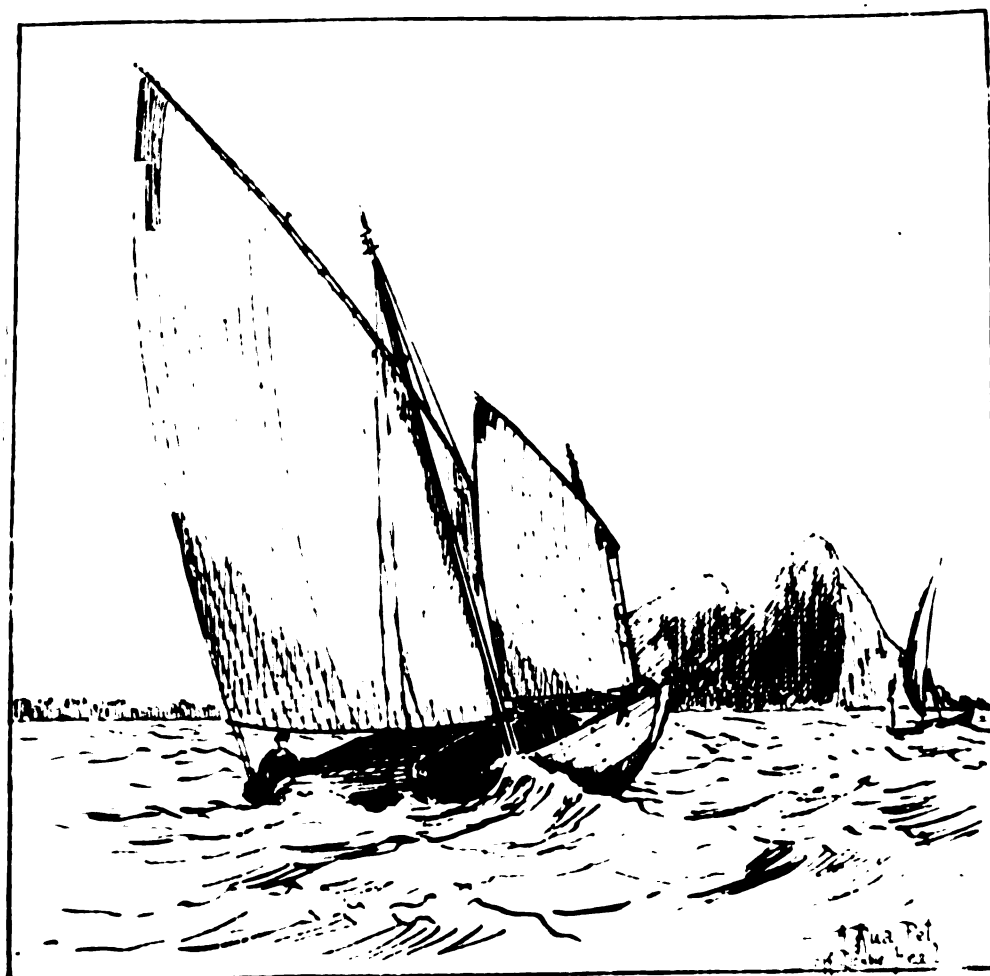
References:

Smyth, H. W., Mast and Sail in Europe and Asia.

London, 1929.

Paris, E. F., Essai sur la Construction Navale des
peuples Extra-Europeens. Paris, 1896.

Notes:



THAILAND (Gulf of Siam) "Rua-Pet."
after W. H. Smyth

CGS R 70 392

THAILAND

(Gulf of Siam)

Local Name of Craft:

(12) "Rua-Chalom."

Type and Use:

Name applied to a type of open sailing craft without distinction of rig used for fishing or transportation on the East and West Coasts of the Gulf of Siam and generally manned by Chinese and Luk-Chin seamen.

Constructional and other Features:

The hull is keel-built with stem and sternpost rising above the gunwale. In the smaller type the outside planking is composed of eight strokes, each of which is made of a single plank running from stem to sternpost. The plank ends are rabbeted to the stem and sternpost, whereas in the "Rua-Pet" they are finished flush. The stem has a long overhang. The high stern is nearly vertical. The larger craft have one or two plank washstrakes extending over about two-thirds of the length amidships. The steering gear consists of two quarter rudders slung to two uprights and held just above the blade by rotten lashings.

THAILAND

(Gulf of Siam)

Local Name of Craft: (12) "Rue-Chalom." (cont'd)

Rig:

The smaller fishing boats carry one mast with sharp peaked standing lugsail. The larger trading boats have two masts. Oars also are used.

Dimensions (Typical):

Length 39.4 feet. Breadth 10.5 feet.

Depth 4.3 feet molded. Capacity 12 tons.

Crew 3 or 4 hands in small boats, 7 in large boats.

References:

Smyth, H. W., Mast and Sail in Europe and Asia. London, 1909.

Paris, E. F., Essai sur la Construction Navale des peuples Extré-Europeens. Paris, 1896.

Notes:

In 1943 there were about 400 vessels of this type afloat.



THAILAND (Gulf of Siam) "Rua-Chalom."
after W. H. Smyth

088 R 762893

THAILAND

(Gulf of Siam)

Local Name of Craft:

(13) "Lorcha."

"Bai-Ao-Shiao."

Type and Use:

A seagoing sailing barge used chiefly in Bangkok River to send rice and teakwood logs outside the bar to the Kohsichang and Anghin anchorages located about 60 miles from Bangkok and where deep-sea vessels load.

Constructional and other Features:

The hull is keel-built and modeled on Western lines with straight vertical stem transom stern, forecastle, and poop. Teak or camphor wood are generally used. The hull is usually painted in red with bright yellow poop and forecastle.

Rig:

The rig adopted is that of the ordinary Chinese three-masted junk with battened lugsails for facility of handling by the Chinese crew. A bowsprit is added but headsails are seldom used.

THAILAND

(Gulf of Siam)

Local Name of Craft: (13) "Lorchs." (cont'd)

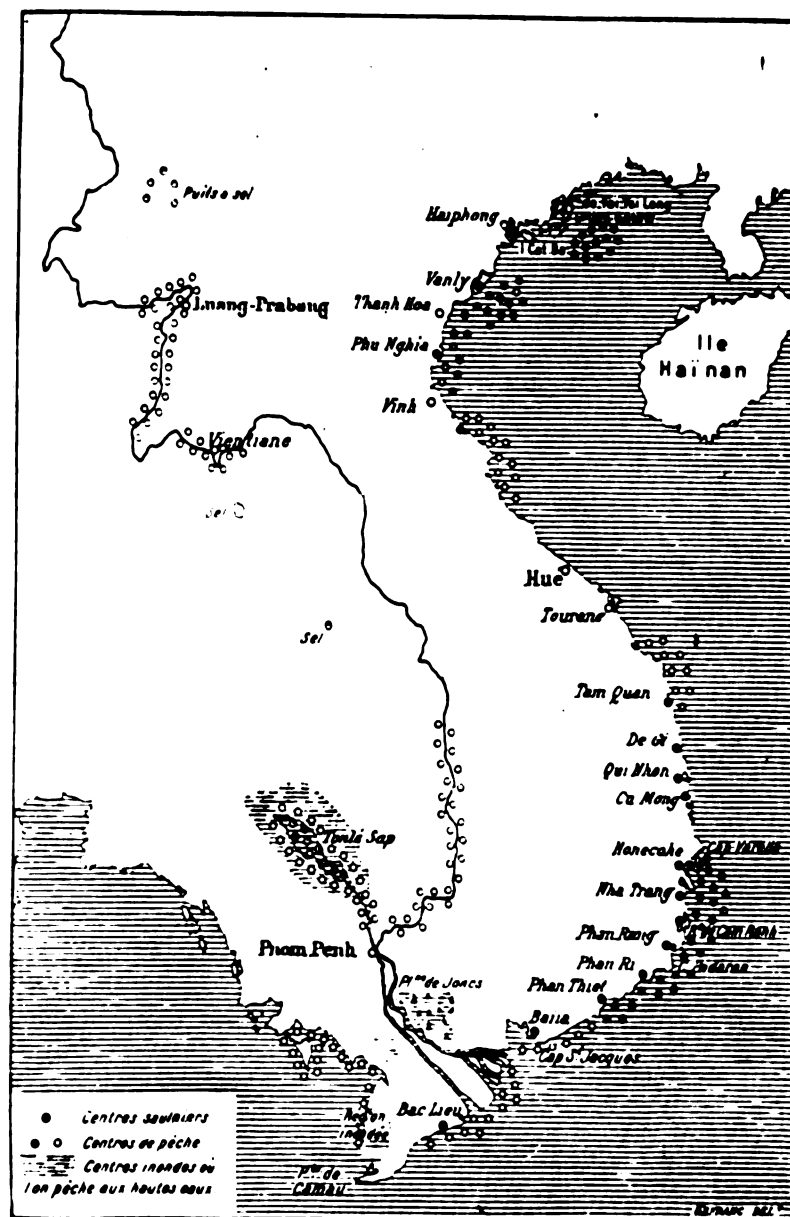
Dimensions and other particulars:

The carrying capacity of the "Lorchs" ranges from 40 to 250 tons. The type most commonly seen carries from 200 to 250 tons.

References:

Smyth, H. W., East and Sail in Europe and Asia. London, 1929.

Notes:





INDO- CHINA

(Annam)

Local Name of Craft:

(14) "Gay-Manh."

Type and Use:

A two-masted open fishing craft from Cua Island.

Constructional and other Features:

The hull is built with flat keel transom bow and stern, and is of chined cross-section. The beams or cross pieces project outboard of the side planking. The rudder works in a trunk and is fastened to the hull by ropes without any metal fittings. It can be slung at different positions according to available depth of water. There are several transverse bulkheads. Amidships and aft there is a thatched roofing. Waterways are provided on each side to allow passage fore and aft. The fore part is decked over with bamboo slits.

Rig:

The fore and aft rig consists of two masts. Each of them carries a battened ear-shaped sail with curved leech, foot, and luff. The foremast is

INDO - CHINA

(Annam)

Local Name of Craft: (14) "Gay-Manh." (cont'd)

stepped right in the eyes of the boat and has a pronounced forward rake. The foresail tacks down to the stem-head. The mainmast has a slight rake aft. Each mast is stayed by two pairs of ratten shrouds. The head of the mainsail is provided with a short yard to which the halliards are bent. Some of the larger craft carry a mizzen mast stepped at side of stern.

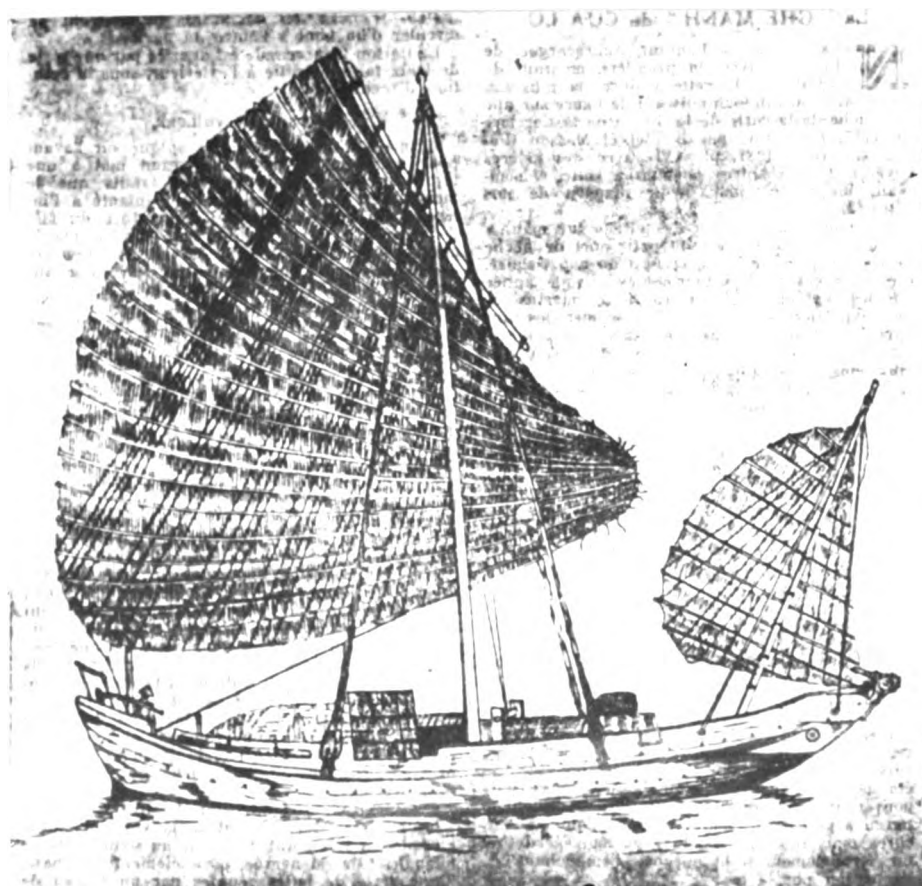
Dimensions:

Length 60 feet. Breadth 13 feet.

References:

Pietri, Trois voiliers peu connus des cotes d'Indochine.
Hanoi, 1943.

Notes:



INDO-CHINA (Annam) "Gay-Manh." - after Pietri OSS R 762895

INDO - CHINA

(Annam)

Local Name of Craft: (15) "Gay-Ghia."

Type and Use:

A native sailing craft from Ki-Nhon used for fishing with a drag net called "Luoi-Gia." The warps are fastened to two long spars rigged out one at each end of the boat which is made to drift under sail with the wind abeam.

Constructional and other Features:

Flat bottom hull with sharp stem and narrow, raking transom stern. There is no keel except forward for a short distance abaft the stem. The upper works of the outside shell consists of three broad strokes of planking. The underwater body is of woven bamboo strips. Beams extending outboard through the lower stroke of planking give the necessary transverse strength and support a portable deck. A deep narrow rudder extends well below the bottom of the hull. It is so fitted that it can be lifted and tilted when the boat drags her net.

INDO - CHINA

(Annam)

Local Name of Craft:

(15) "Gry-Ghie." (cont'd)

Rig:

Three masts, all stepped in the fore part of the boat.

The mainmast is the aftermost spar. Each mast has a high peaked lugsail with boom. No headsails.

Dimensions:

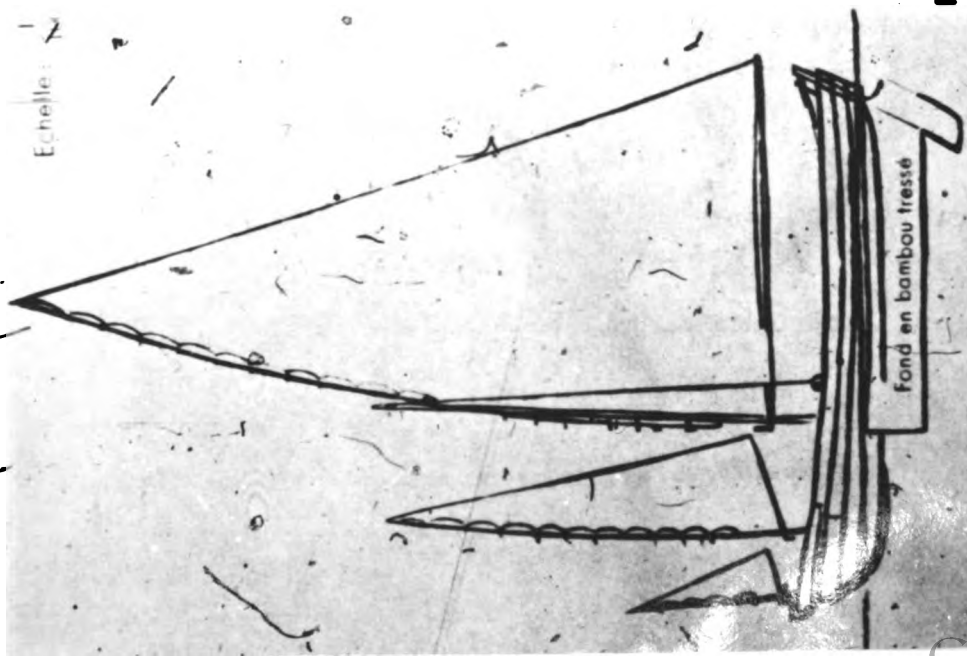
Length O. A. 25.1 feet. Breadth 6.4 feet. Depth 2.9 feet.

References:

Sallensave, P., Bulletin Economique de l'Indochine. No. 4, 1943.

Notes:

PLAN DE VOILURE



GHE GIA DE QUI-NHON
PLAN DE CONSTRUCTION

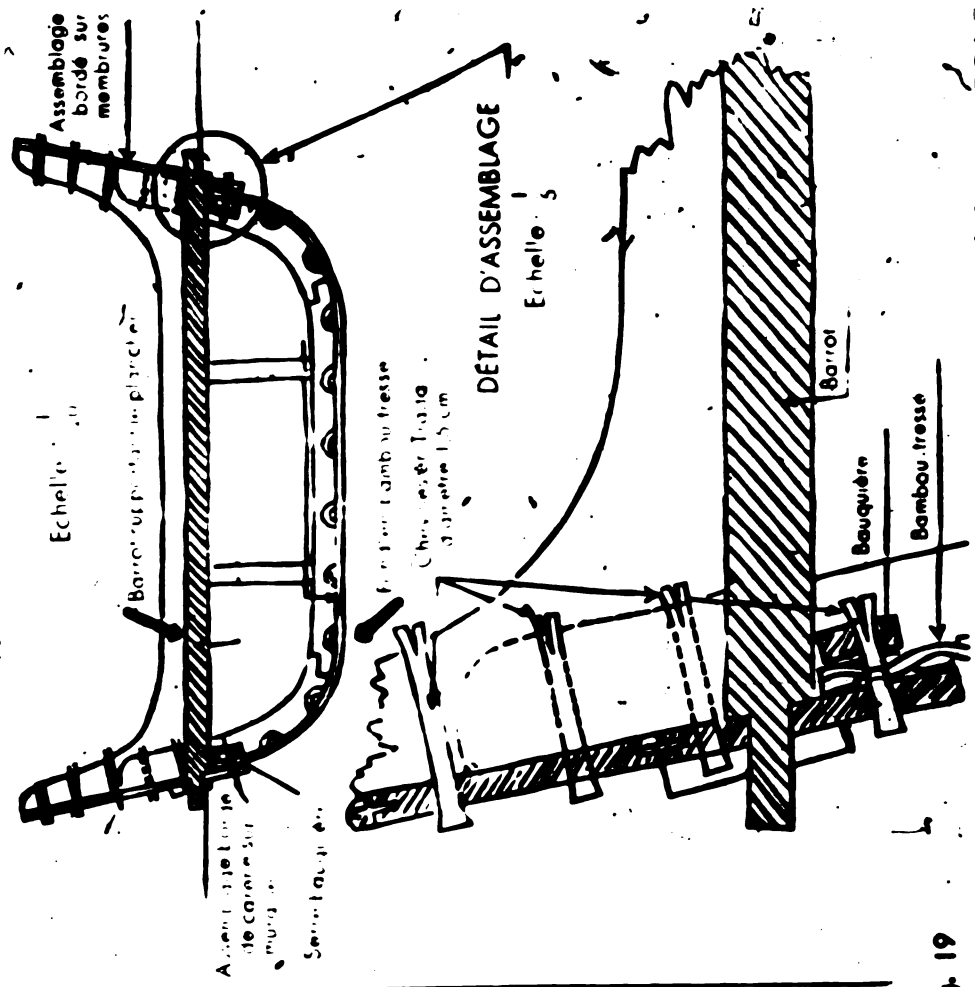


Fig. 19

OSS R 762896

INDO-CHINA (Annam) Plans of "Gay-Ghia." -after Sallesnave

GHE GIA DE QUI-ATHON

PLAN DES FORMES

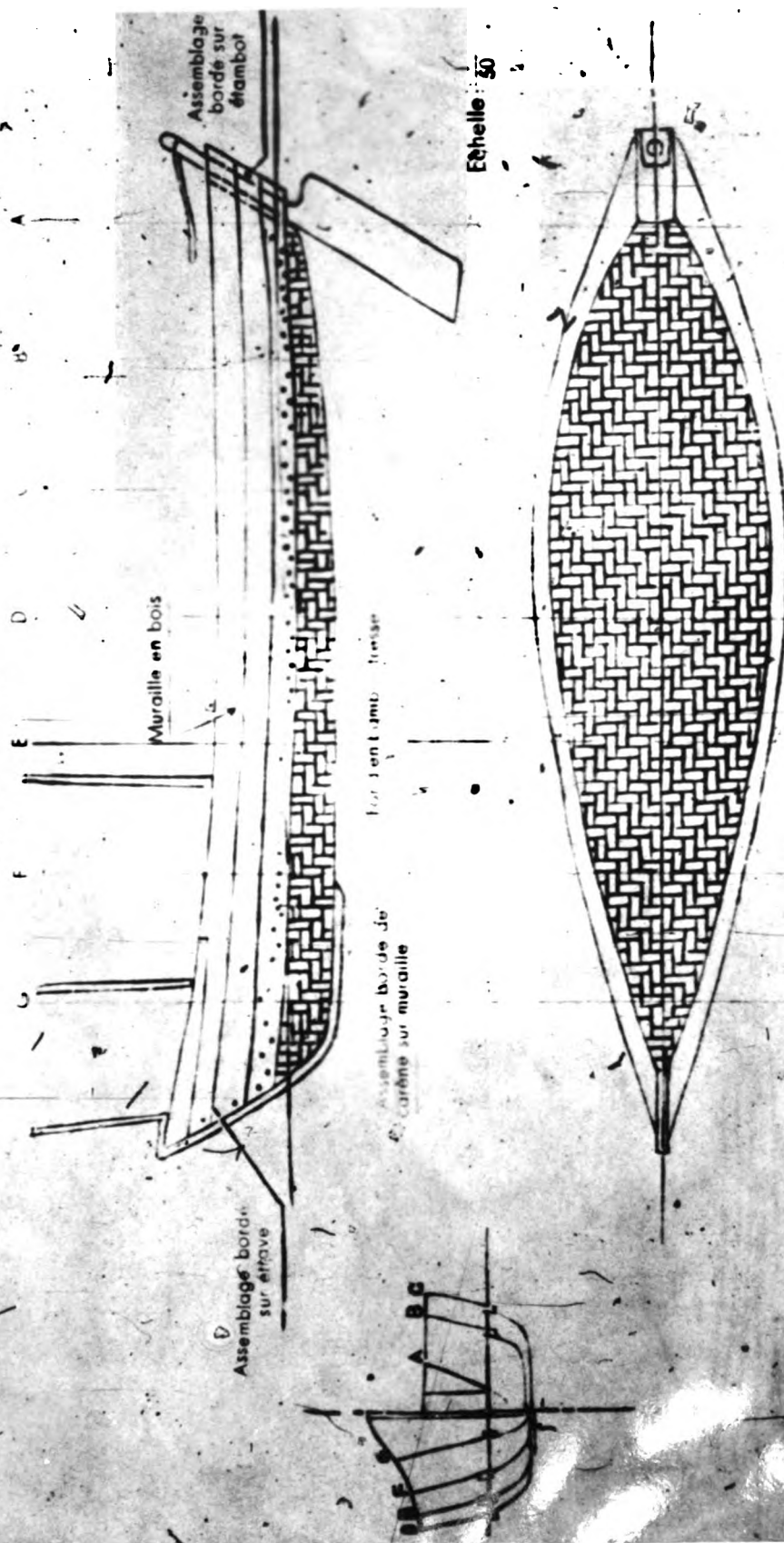


Fig. 13

INDO CH. A (Annam) Plan of "Gay-Ghia." -after Sallénave

OSS R 762897

INDO - CHINA

(Annam, Kwang-Ngai District)

Local Name of Craft:

(16) "Gay-Bao."

Type and Use:

A three-masted sailing coaster.

Constructional and other Features:

Double ended hull with rounded forefoot and considerable overhang at ends. The flat keel consists of a heavy plank. The underwater part of the hull is made of bamboo strips woven like a basket and coated with a waterproof mixture of resin, lime, and wood oil. The object of this system is to avoid the damage on wooden planking caused by teredo worms, which swarm in these waters. Internally the hull is divided by several transverse bulkheads, the largest craft having up to eight. There is a pronounced tumble home of topsides amidships as in a turret ship. Breadth at deck-level is about 4 feet less amidships than at the ends of the vessel. All fastenings are of wood, the only metal fittings being the rudder-gudgeons and pintles. The beam-ends project outboard for about one foot on each side. The deck consists of portable planks laid over

INDO - CHINA

(Annam, Kwang-Ngai District)

Local Name of Craft: (16) "Gay-Bao." (cont'd)

the beams. There is a deckhouse with round shaped roof abaft the mainmast.

Rig:

Two or three masts, with fore and aft rig. The large boats which take comparatively long sea trips have a sort of gunter rig with battened sails. The smaller units which navigate in bays and estuaries have lug sails. All standing rigging is made of rotten rope with very little twist in the strands. Sails are made of matting.

Dimensions and other particulars:

Length over all 39 to 71 feet. Breadth 8.7 to 14.4 feet.

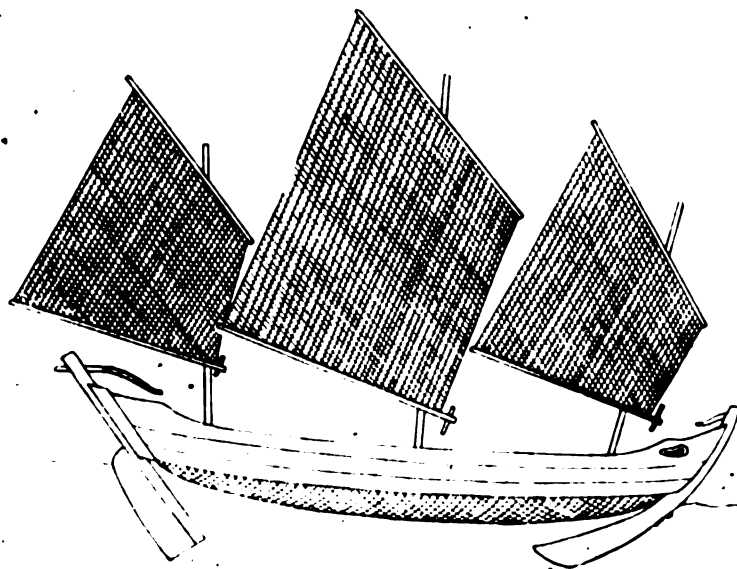
Depth 5.3 to 10 feet. Draft 3 to 6.5 feet.

References:

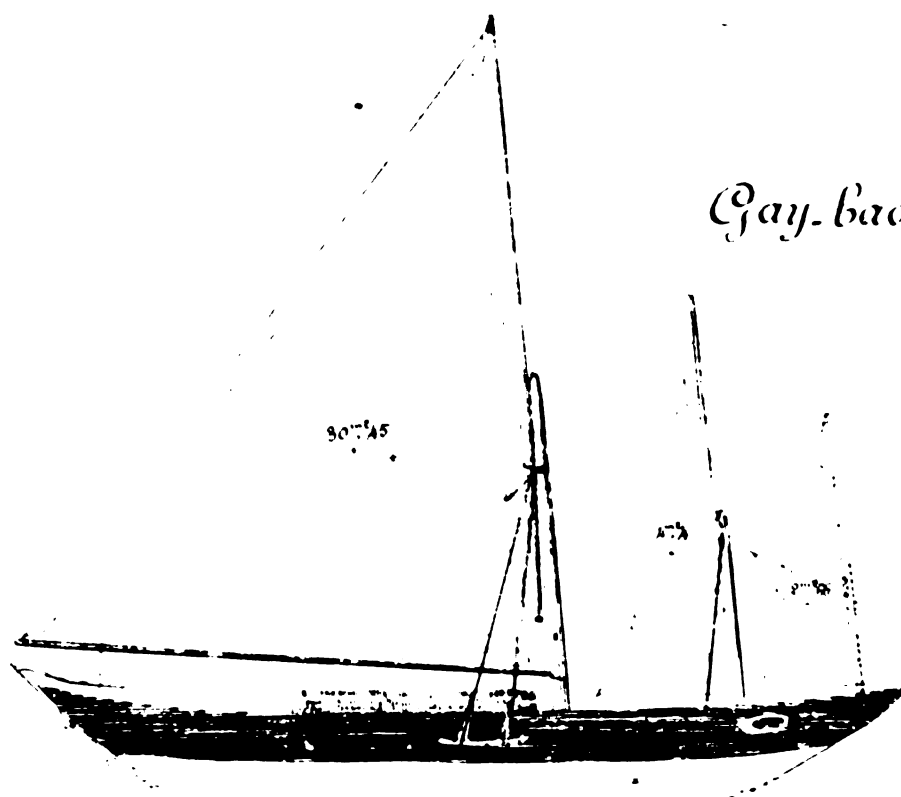
Paris, E. F., Souvenirs de Marine.

Notes:

A boat of similar type but smaller and employed mainly for the transportation of salted fish, lumber, and salt is called "Gay-Gua."



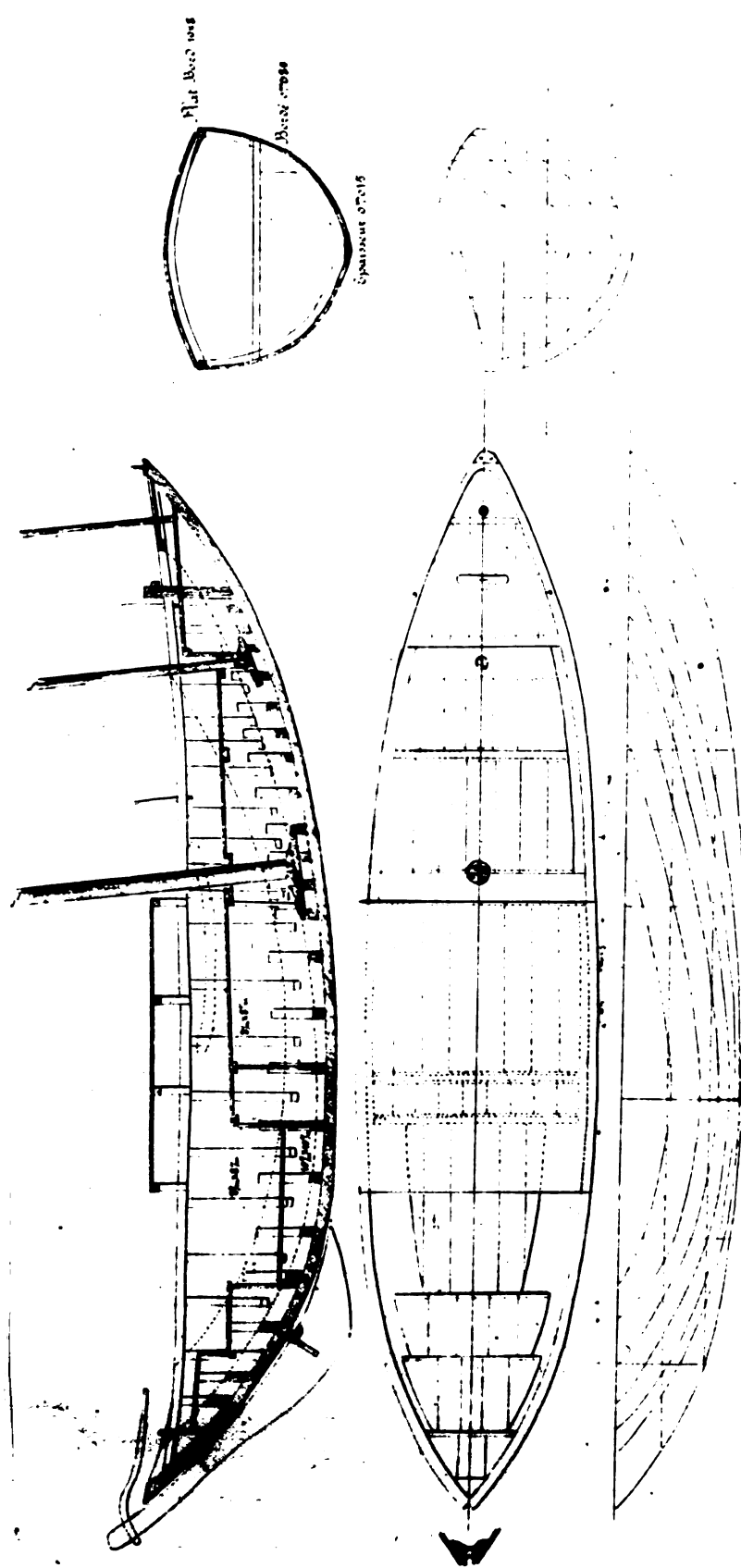
Gay-bao N° 3



INDO-CHINA (Annam) Plans of "gay-Bao." - after Laris 083 R 762898



23



INDO-CHINA (Annam, Kwang-Ngai District) Plan of "My-mo." -after Paris 685 R 762899



INDO-CHINA (near Saigon) "Gay-Bao." Before 1940. OSS R 734171

INDO - CHINA

(Annam)

Local Name of Craft:

(17) "Gay-Beh."

Type and Use:

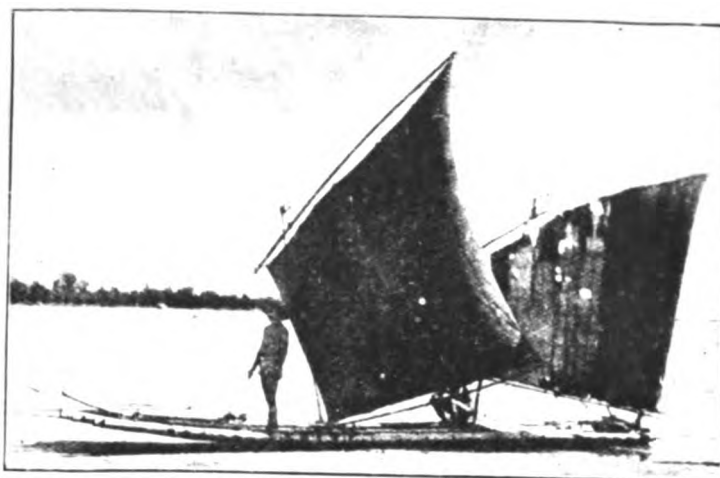
A sailing catamaran or raft employed for fishing in the coastal waters and lagoons of Kwang-Ngai and Than-Hao Districts. It consists of eight or ten heavy bamboo logs securely tied together by rattan lashings. There are one or two portable poles rigged with square-shaped sails. These poles are always carried on the lee side when sailing and as there is no standing rigging can easily be moved from one side to the other when required. Each sail is bent to a yard. There are no halyards for hoisting the yard. The latter is slung by a rattan grommet which fits into a slit provided in the top of the pole for this purpose. Three center boards or dagger boards are used to check excessive leeway when under sail.

References:

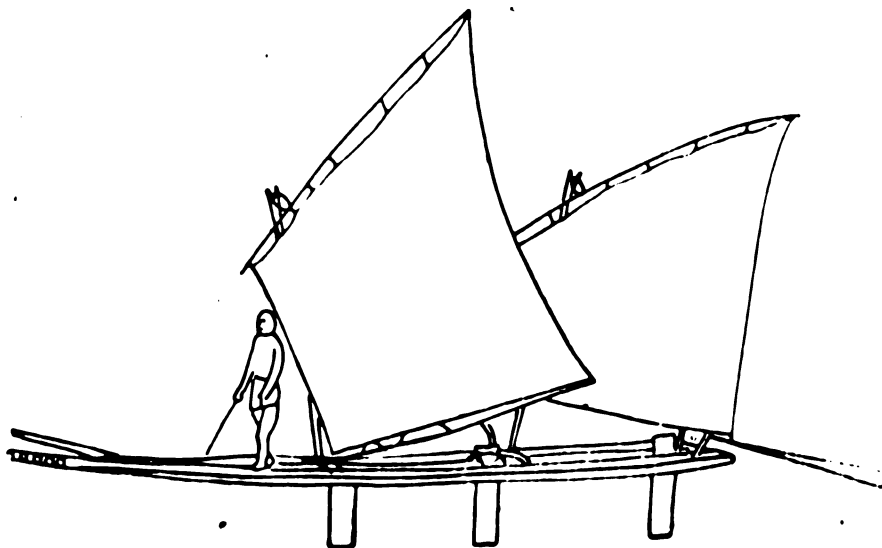
Paris, P., "Institut Indochinois pour l'Etude de l'homme."

Bulletin. 1939.

Notes:

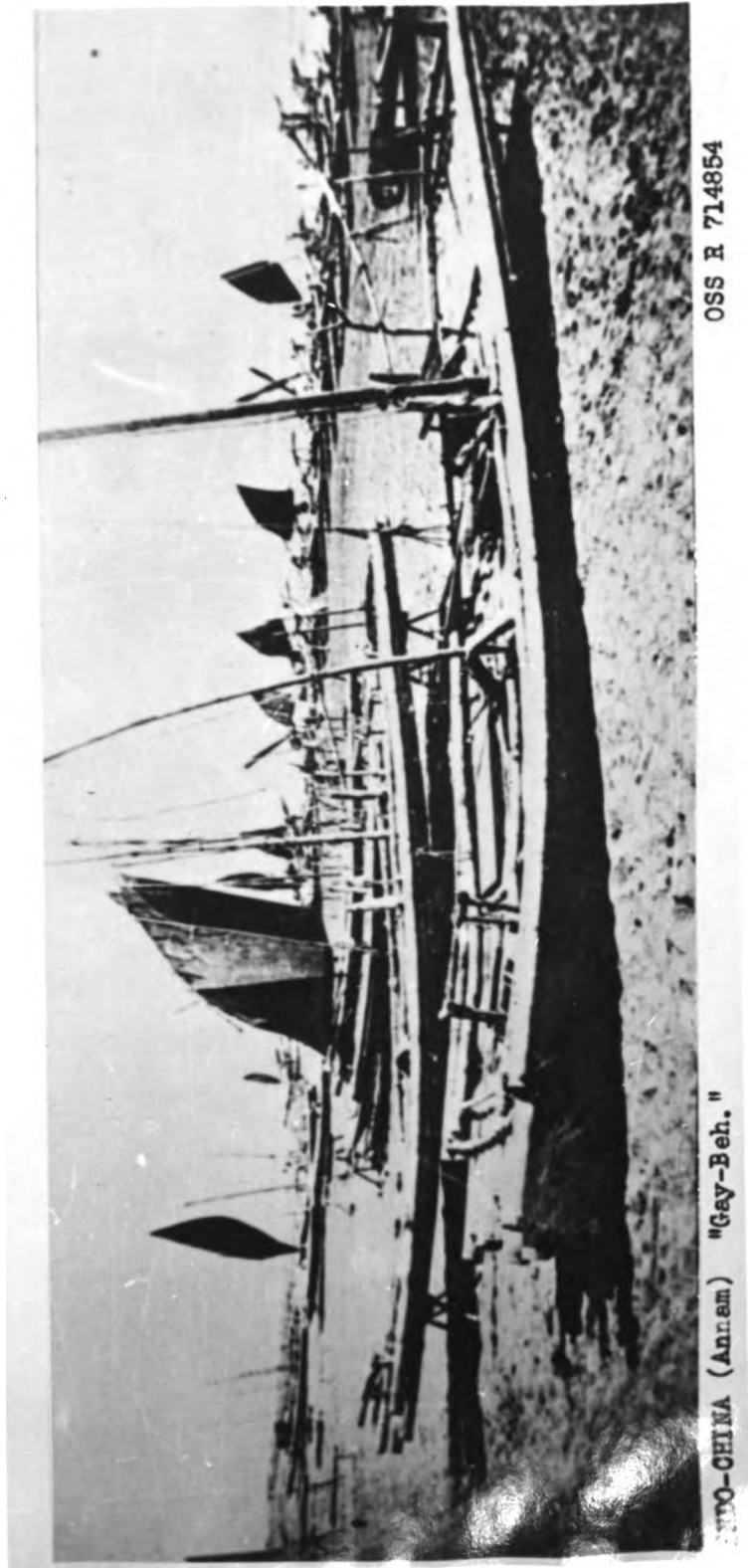


INDO-CHINA (Annam) "Gay-Beh." -after Rouan



INDO-CHINA (Annam) "Gay-Beh." -after P. Paris

OSS R 762900



OSS R 714854

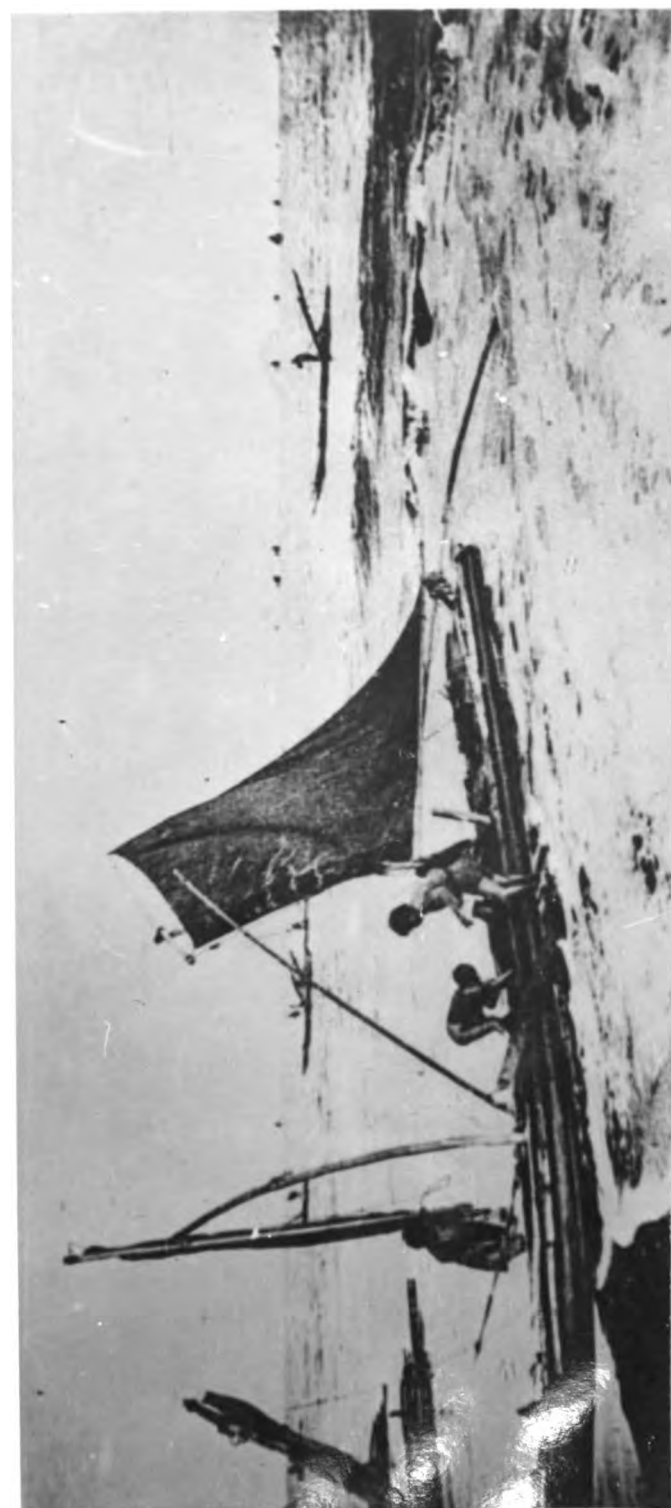
USSO-CHINA (Annem) "Gay-Beh."



INDO-CHINA (Annam) "Gay-Beh."

OSS R 717884

29057



INDO-CHINA (Annam) "Gay-Beh."

OSS R 714853

INDO - CHINA

(Annam)

Local Name of Craft: (18) "Gay-Yoo."

Type and Use:

Open fishing boat working with a drag net in the Bay of Tourane and adjacent waters. The warps of the net are fastened to two booms rigged out at each end of the boat which drifts with the wind broadside on.

Constructional and other Features:

The hull is built with flat bottom and square cross-planked ends. There are no frames, the whole structure being formed of broad strakes of planking fastened edge on and fitted inside with batten seams. The battens are connected to the planking with coir or rattan seizings. A deep center-line rudder of Chinese pattern projecting under the bottom of the boat acts as a centerboard when sailing to and from the fishing grounds. A balance pole weighed with stones is rigged out on the weather side to give more or better stability when under sail. Deckhouse with thatched roof amidships.

INDO - CHINA

(Annam)

Local Name of Craft: (18) "Gay-Yoo." (cont'd)

Rig:

The rig consists of two masts with boomed lugsails.
A third small square-shaped sail is occasionally set
in light breezes when fishing.

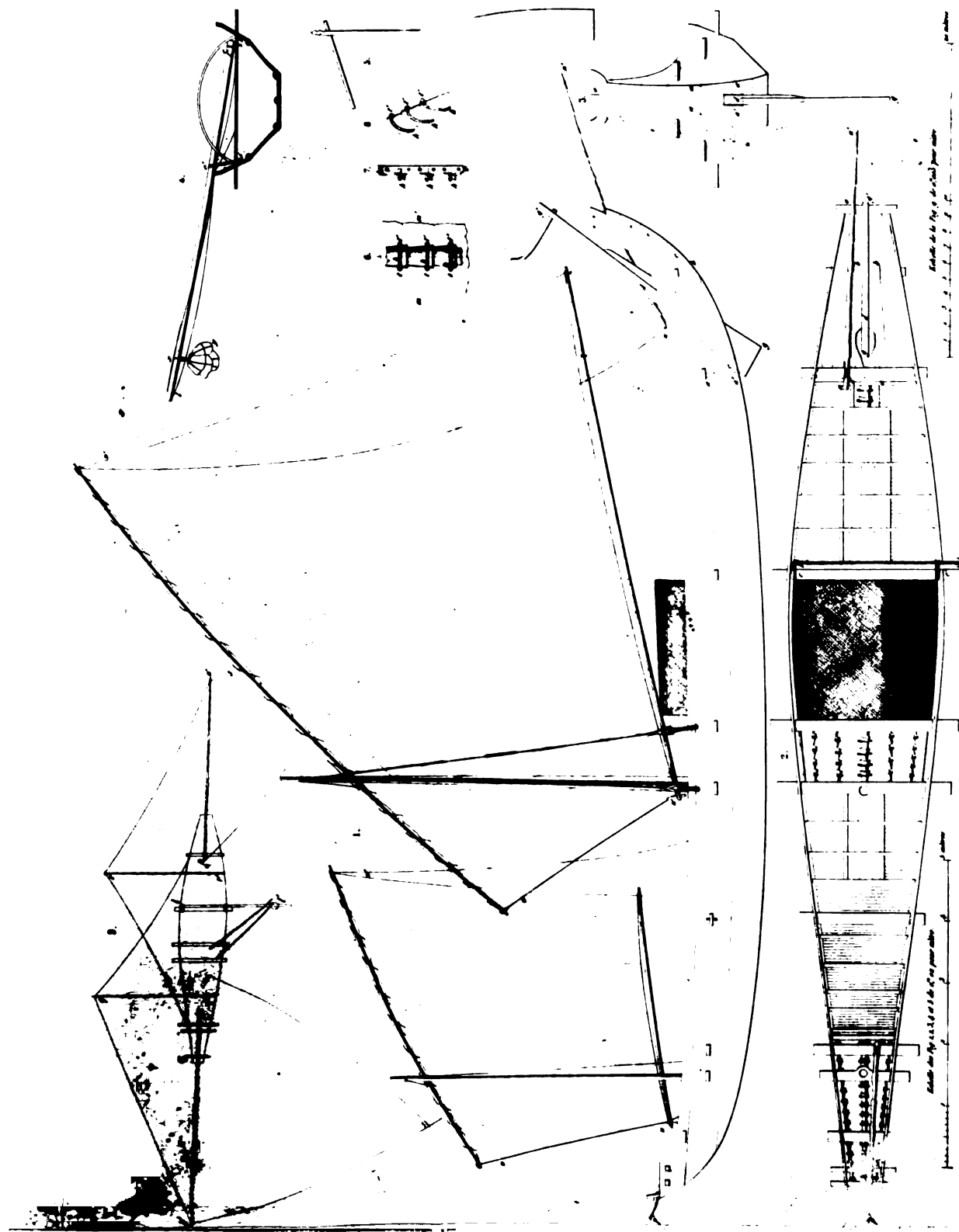
Dimensions (typical):

Length 47 feet. Breadth 7.9 feet. Depth 3.9 feet.

References:

Paris, E. F., Essai sur la Construction Navale des
peuples Extra-Europeens. Paris, 1896.

Notes:



see p. 100

HULL - HULL (HULL) PLAN of "HULL-100" - HULL PLAN

1000

INDO - CHINA

(Annam)

Local Name of Craft:

(19) "Gay-Diang."

Type and Use:

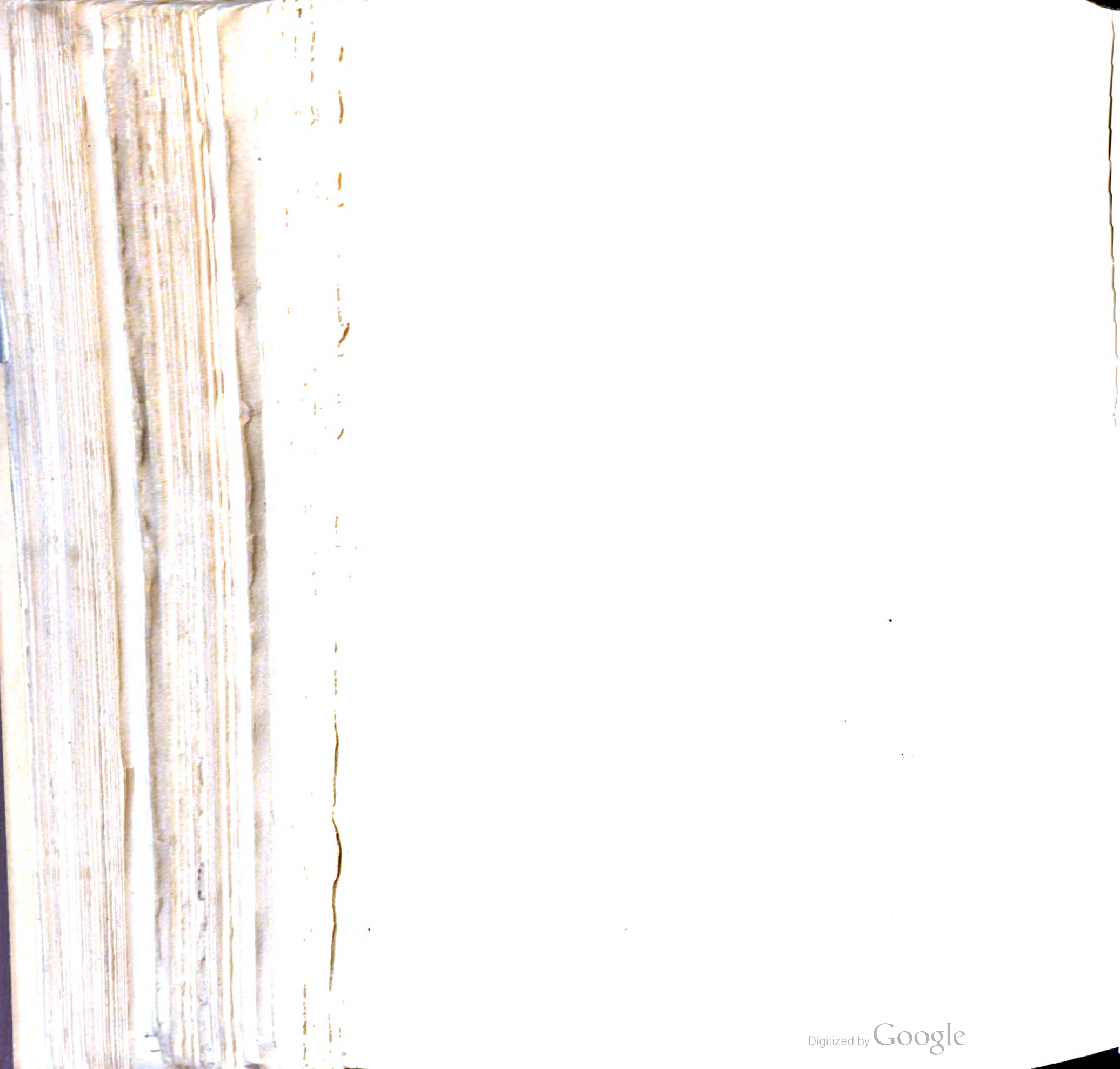
A sailing coaster originating from Annam with remarkable seagoing qualities. It is very similar in build and rig to the Siamese "Rua-Pet."

Constructional and other Features:

The hull is built with keel, straight raking stem with head flattened out. Sharp stern; center line rudder with gudgeons and pintles. Heavy frames with clamp for deck beams. The deck has a pronounced camber and the deck line at sides is about 8 to 12 inches below the gunwale. A large deckhouse made of whithies and with a thatched roof is provided aft. Broad and thick planking fastened with wooden pegs. The upper works are painted black. Sides and bottom in white.

Rig:

Two masts with ratten shrouds and high-peaked lugseils with booms. The mainmast is stepped amidships. Long oars are used in calm weather.



INDO - CHINA

(Annam)

Local Name of Craft: (19) "Cay-Diang." (cont'd)

Dimensions (average): •

Length 50 feet. Breadth 15 feet. Depth $7\frac{1}{2}$ feet molded.

References:

Paris, E. F., Essai sur la Construction Navale, Paris,
1896.

Notes:

INDO - CHINA

(Tonking)

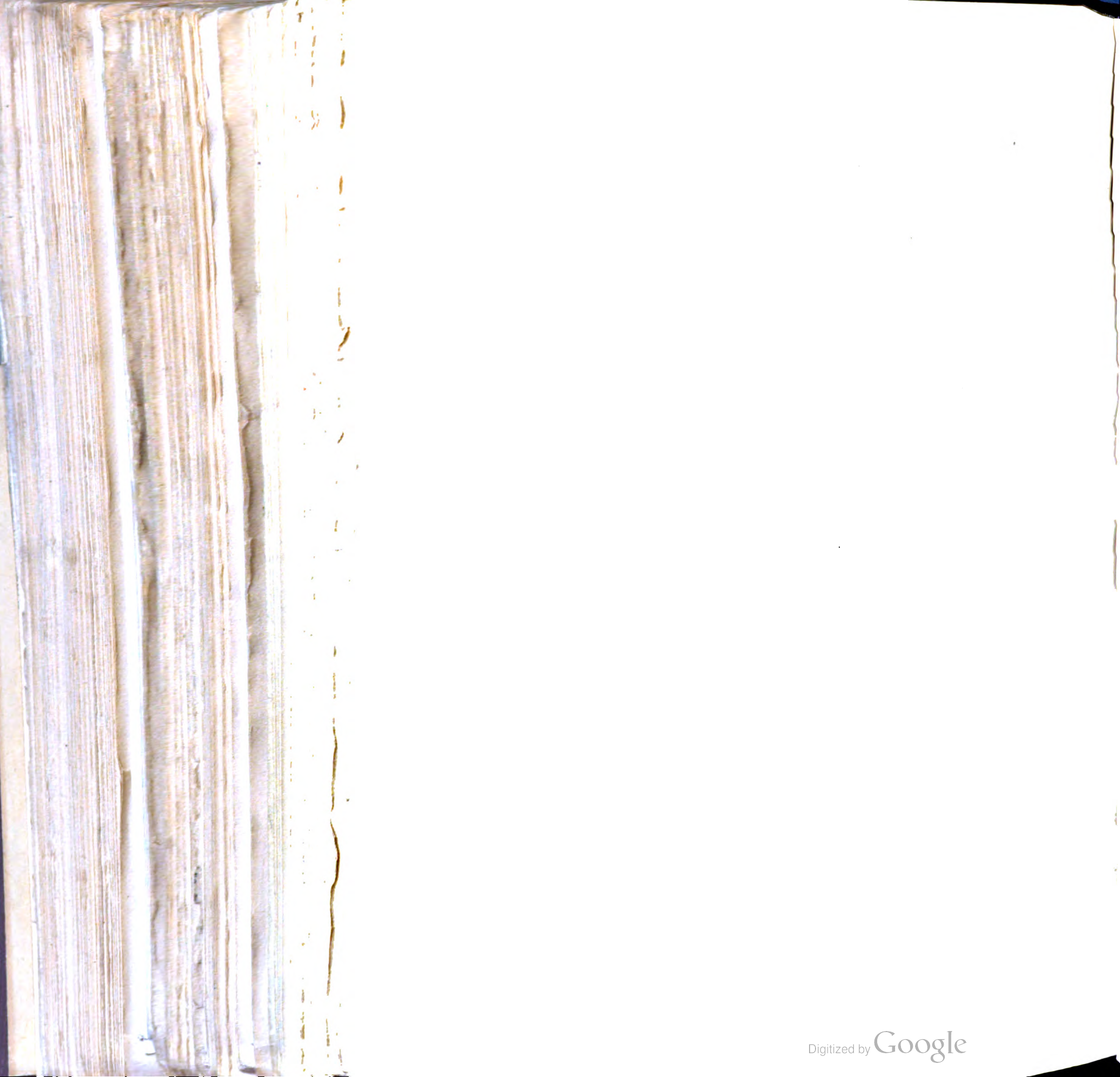
Local Name of Craft:

(20) "Tang-Vay."

Type and Use:

A small Chinese junk decked fore and aft found in the Gulf of Tonking. The rig consists of one mast with battened lug-sail. These boats make fairly long journeys up and down the coast. They are chiefly employed for deep sea fishing.

Notes:



INDO - CHINA

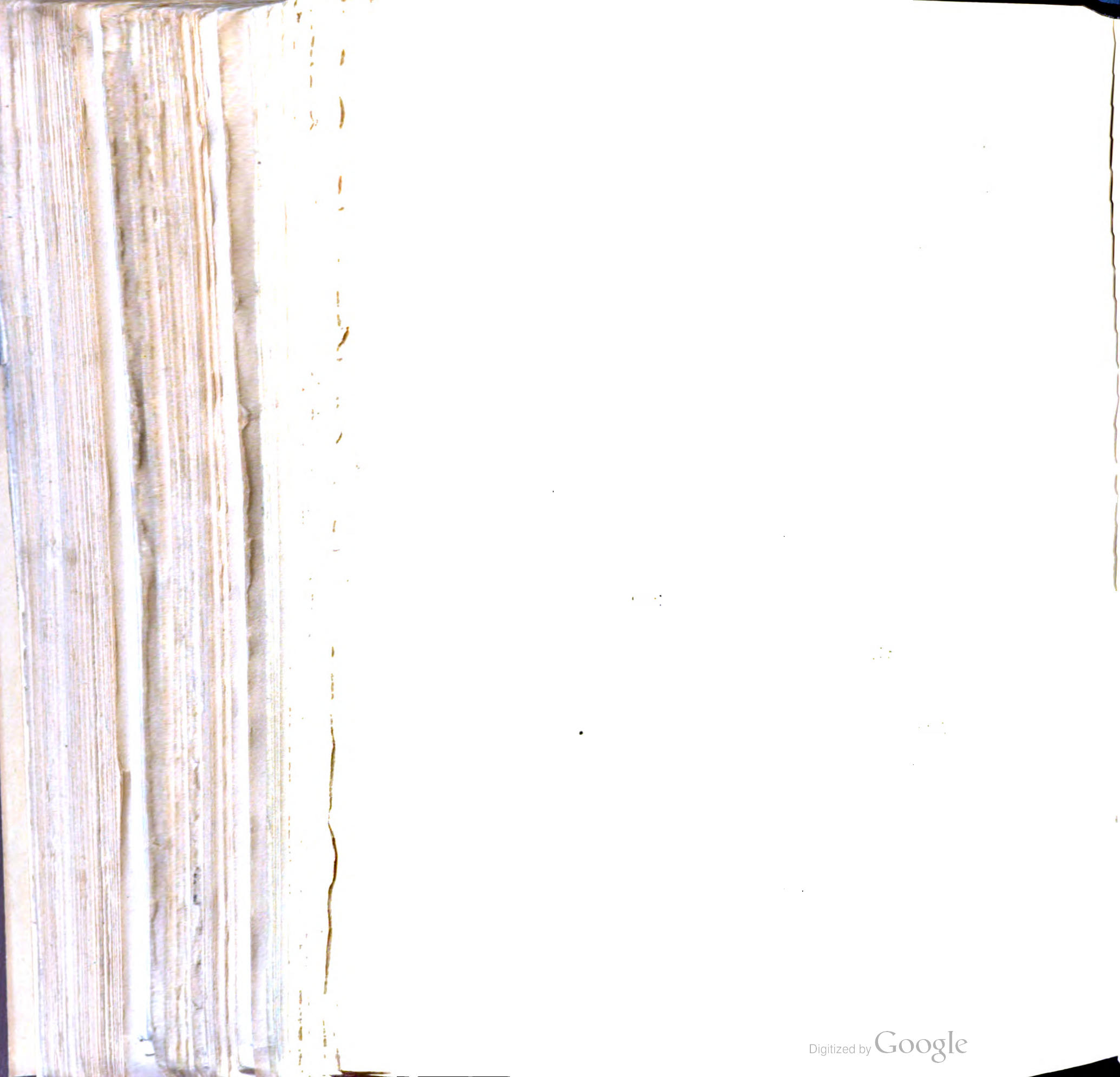
(Annam)

Local Name of Craft:

(21) "Gay-Treh."

Type and Use:

A small fishing boat used in sheltered waters. The hull is made entirely of woven bamboo strips covered with a waterproof coating consisting of a mixture of the "Chay" tree resin and buffalo dung. The stem-sternpost-gunwale and thwarts are the only structural parts made of wood. To catch fish a board painted white is fastened to the gunwale with rattan lashing so that it hinges along a horizontal plane. As the freeboard of the boat is very small it forms with the water surface a slightly inclined surface. The fish is attracted by the white surface and a small vertical net is rigged just aft of the board to prevent escape of the catch. When the occupants of the boat estimate that there are a sufficient number of fish above the board the latter is raised rapidly and the catch drops inside of the boat. These craft are mostly found in Thanh-Hoa and Nghe-An Districts of Northern Annam.



INDO - CHINA

(Annam)

Local Name of Craft: (21) "Gey-Treh." (cont'd)

References:

Gruvel, A., L'Indochine. Paris, 1925.

Paris, E. F. Souvenirs de Marine. Paris, 1896.

Notes:



INDO - CHINA

(Tonking)

Local Name of Craft:

(22) "Tuyen-Luoi."

"Tuyen-Dang."

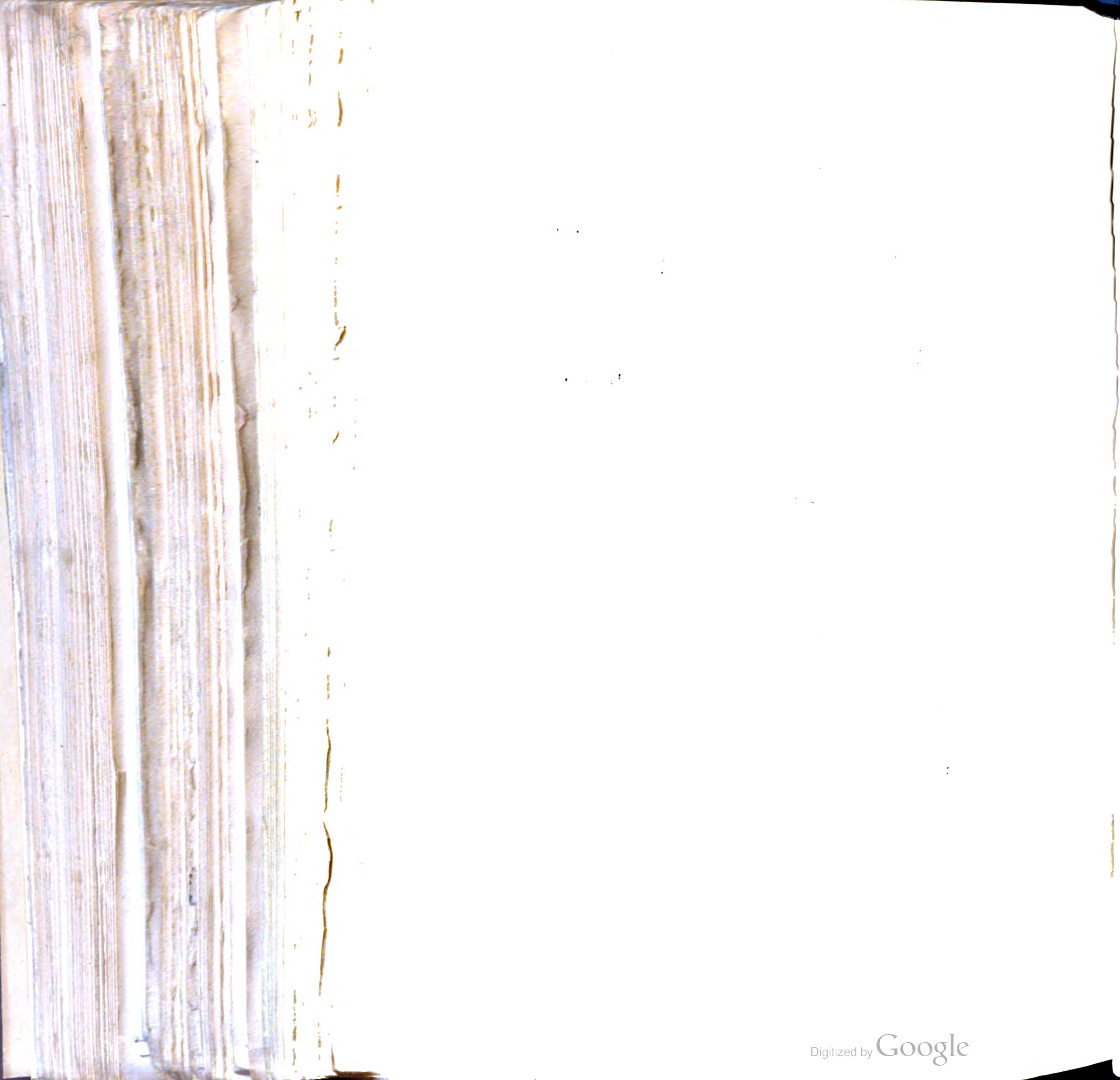
"Tuyen-Cao."

Type and Use:

Open sailing craft originating from the Baie c'Along.
The hull has a length ranging between 19 and 26 feet.
The topsides are made of hardwood planking. The sides
and bottom below water line level are of woven bamboo
strips. A round shaped bamboo roofing extends over
two-thirds of the length as these craft are used as
permanent dwellings by the fishermen and their fami-
lies. Two rowers using Chinese sweeps or "Yuloh"
are used as propellant. These boats are only used
for fishing in sheltered waters.

Notes:

Other varieties of this type are called "Tuyen-Dang"
and "Tuyen-Cao."



INDO -CHINA

(Tonking)

Local Name of Craft:

(23) "Gay-Teh."

Type and Use:

A dugout canoe with low flattened bow and rising stern employed in the bays and estuaries of the Coast of Annam for fishing. It has a length of 8 to 10 feet and 1.6 feet breadth and uses a board painted in white which hangs from the side of the boat to attract the fish.

Notes:



HAINAN ISLAND

Local Name of Craft: Unknown
(Hylam Junk)

Type and Use:

A keel-built shallow draft trading craft originating from Hainen and used for transportation along the coast of Annam and in the Gulf of Siam.

Constructional and other Features:

The hull is built with flat bottom, easy bilge, straight raking stem and counter stern with gallery in which a trunk is provided for raising the rudder. The latter is of the usual Chinese pattern and is held in place by chains which pass up the trunk and are belayed on deck. The deck extends from stem to stern, with one large hatchway amidships and high poop. Some of these junks are fitted with a center-board between the fore and mainmasts. It is worked vertically by a wooden windlass.

Rig:

Three masts with battened Chinese lugsails. The foremast has a pronounced forward rake. The main and mizzen masts are vertical. The small mizzen

HAINAN ISLAND

Local Name of Craft: (Hylam Junk) (cont'd)

is stepped in a tabernacle on the quarter. The standing rigging is of wire; the running gear and anchor cables of coir rope.

Dimensions (typical) and capacity:

Length (water line) 92 feet, 6 inches.

Breadth 28 feet. Depth 7 feet. Crew 21.

References:

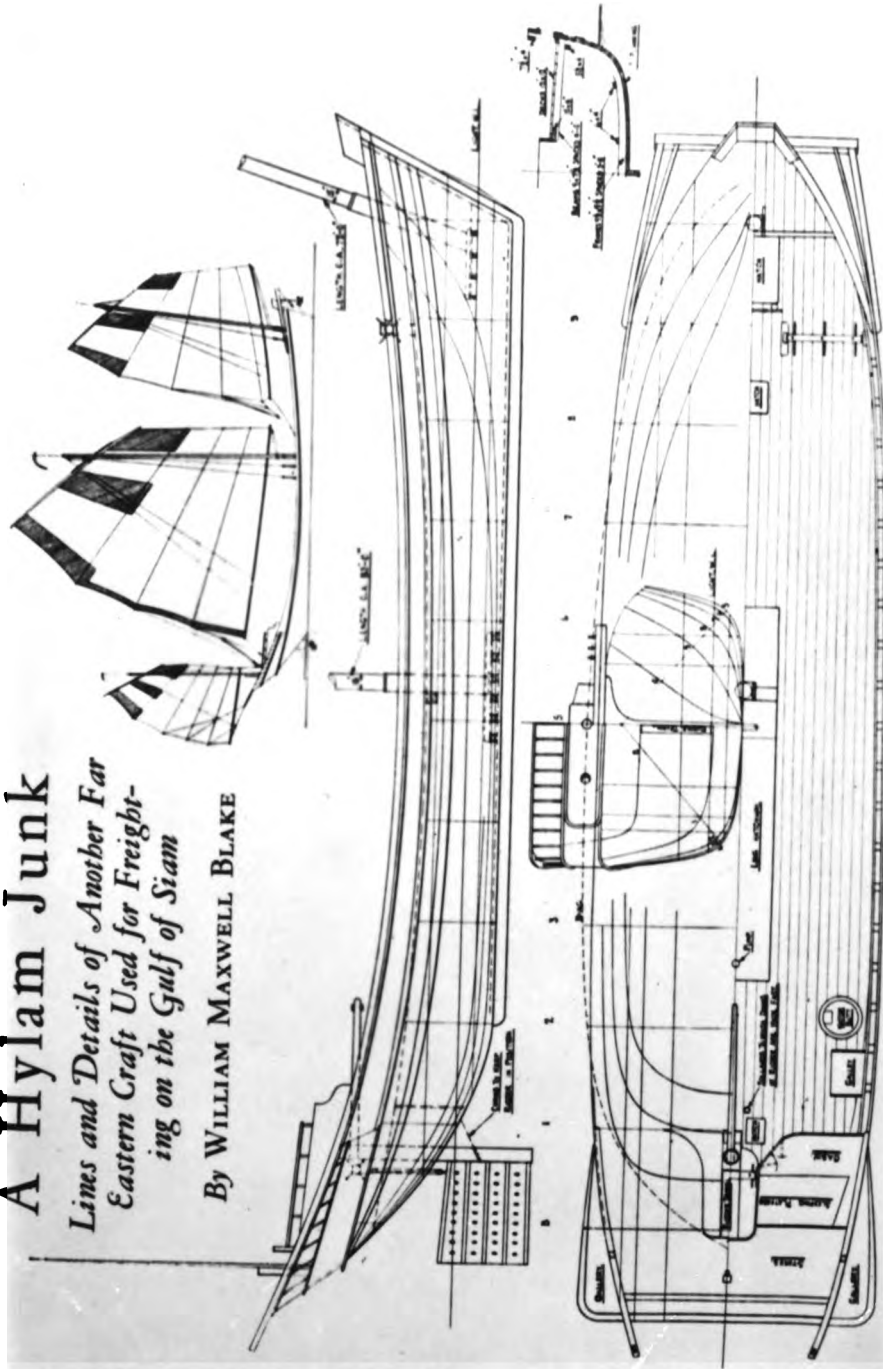
Blake, W. M., The Hylam Junk, Yachting, N. Y. 1929.

Notes:

A Hylam Junk

*Lines and Details of Another Far Eastern Craft Used for Freight-
ing on the Gulf of Siam*

By WILLIAM MAXWELL BLAKE



Lines and sail plan of Hylam Junk, as taken off by the author in Singapore. Length, w. l. 92' 6"; beam, 28'; depth, 7'.

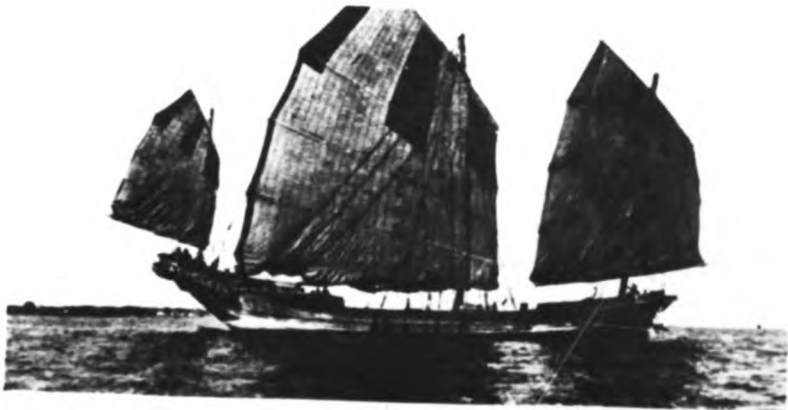
HATMAN ISLAND. Plan of "Hylam Junk." -after Blake

OSS R 762901

86092



Stern view, showing high poop.



Hylam Junk, under way.

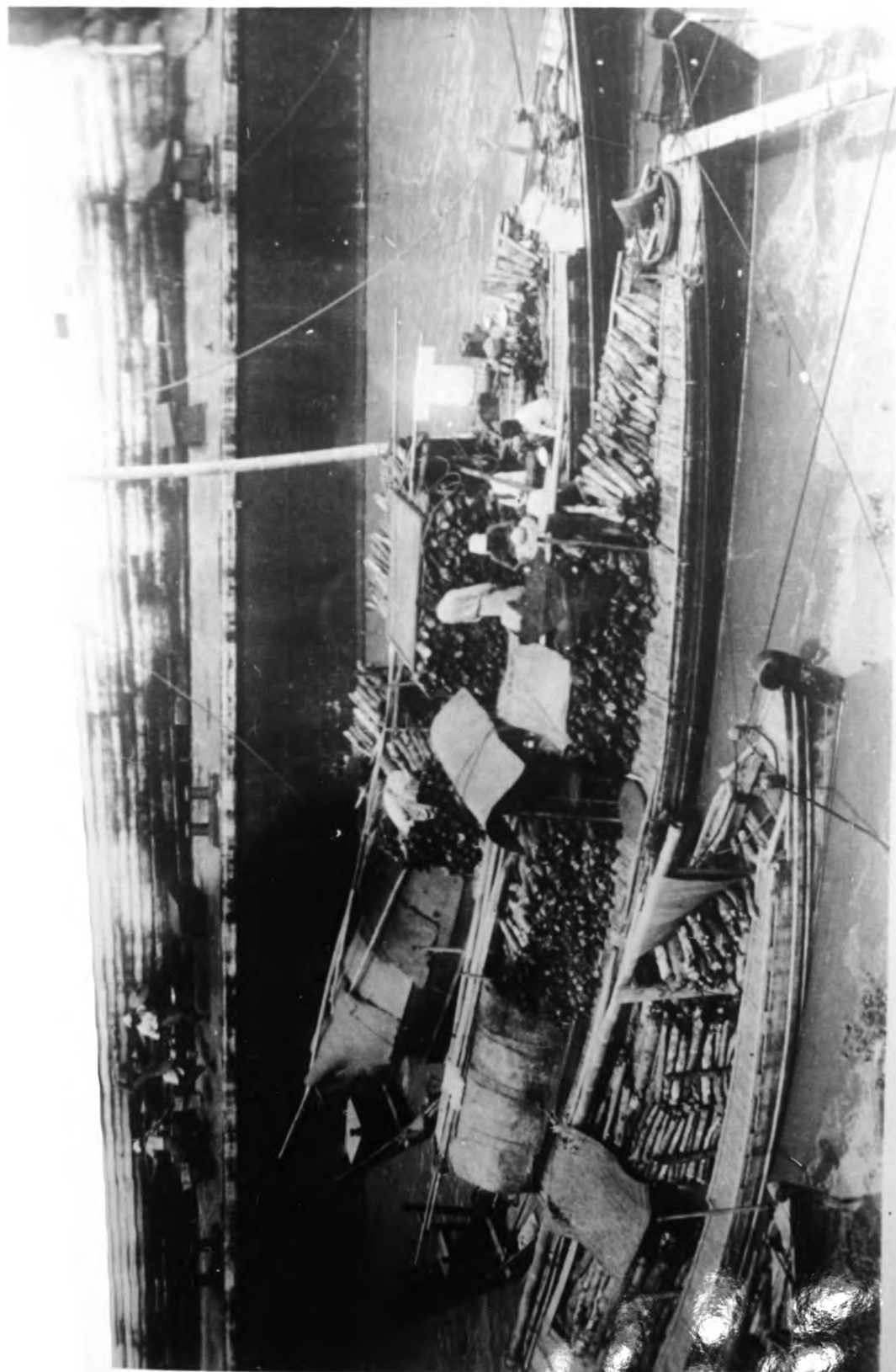
HAINAN ISLAND. "Hylam Junk." -after Blake OSS R 762902

56098



1. Native craft on the Irrawaddy River, Burma. Before 1930. OSS R 734563

55942



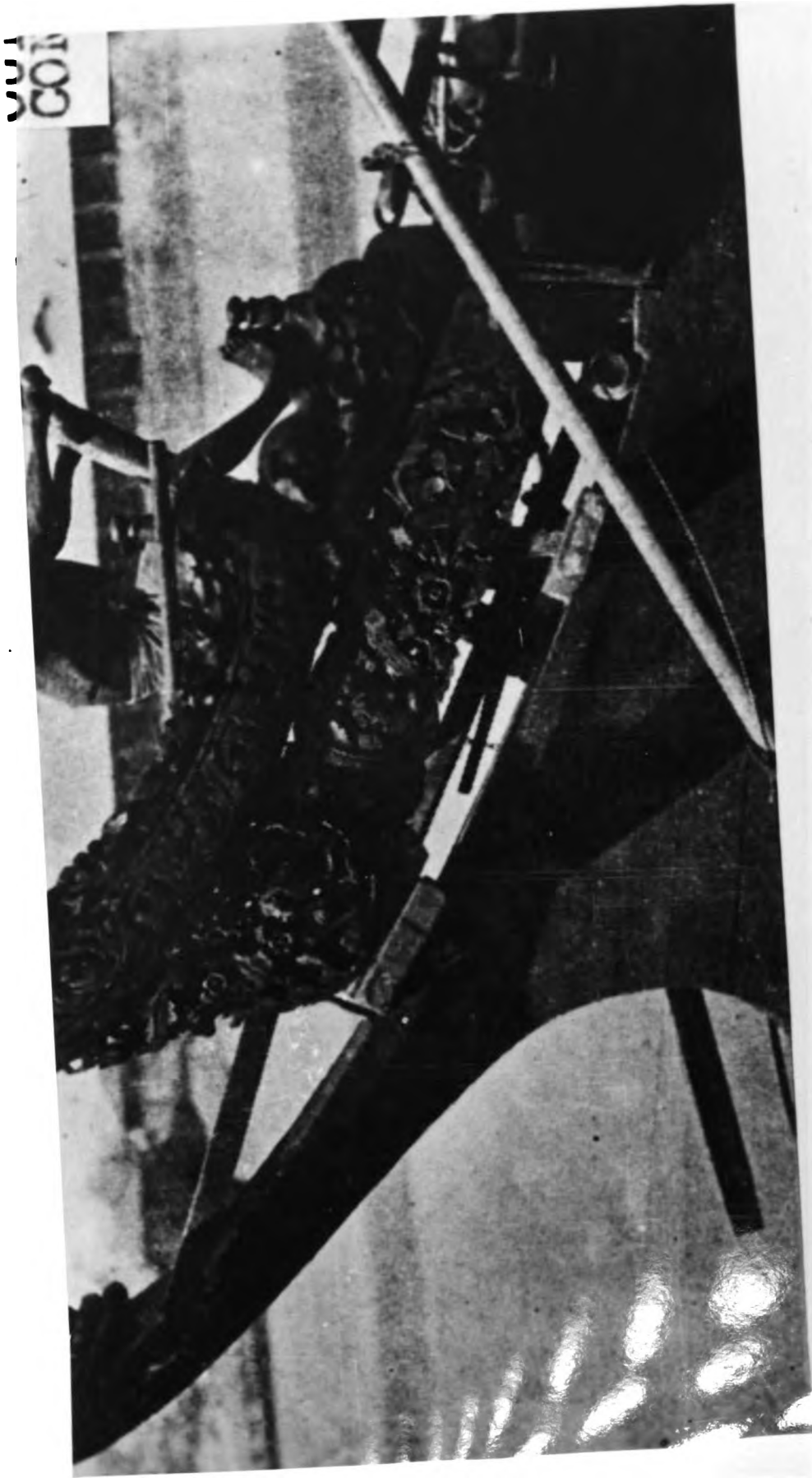
2. Native craft carrying wood, Mandalay, Burma. OSS R 113871.



3. Native craft at Nyaungghla, Burma. 1923. OSS R 762756

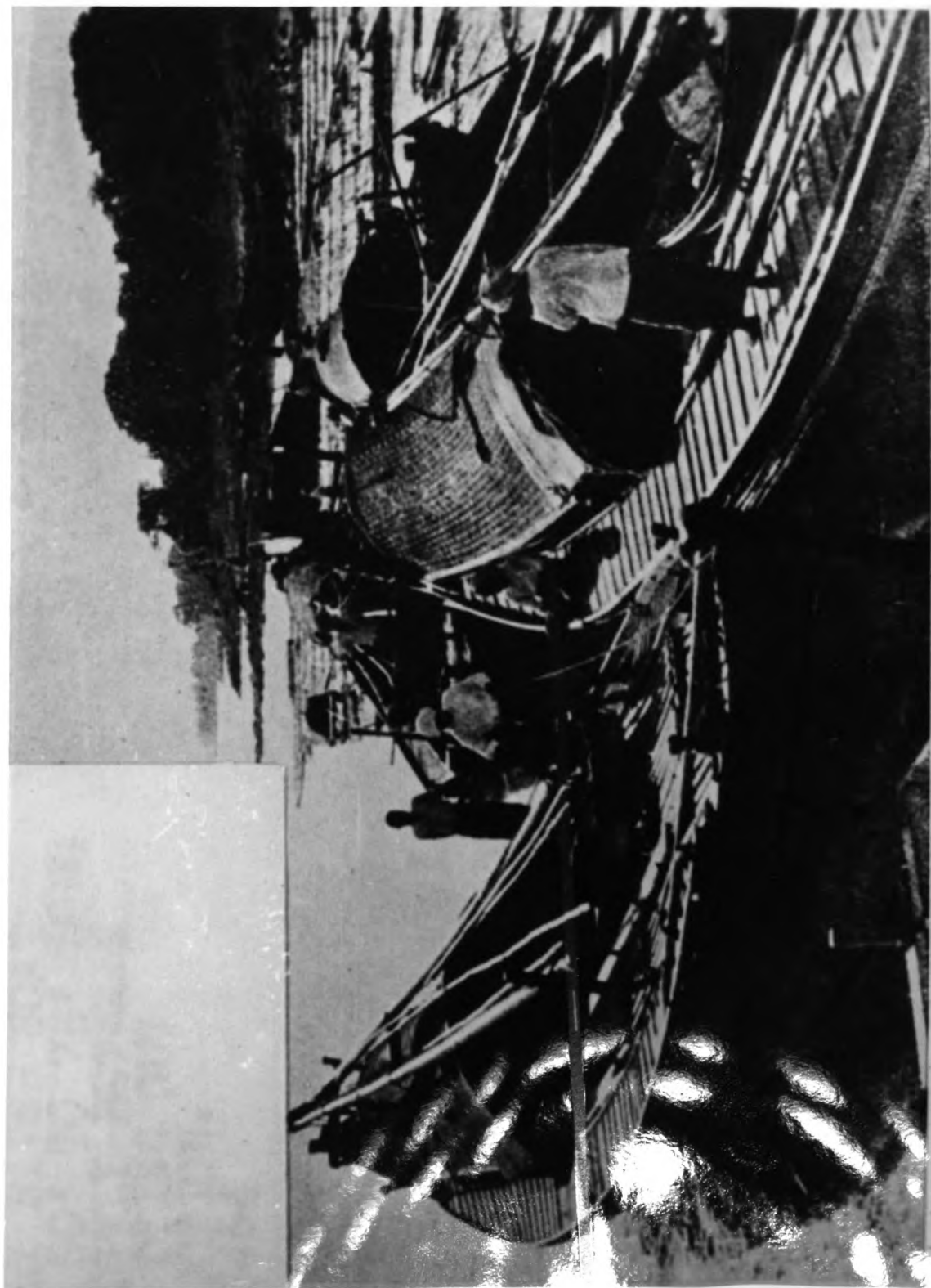


4. Native craft at Mandalay, Burma. Before 1930. OSS R 734564



5. "Laung-Za-t," showing high, decorated stern.

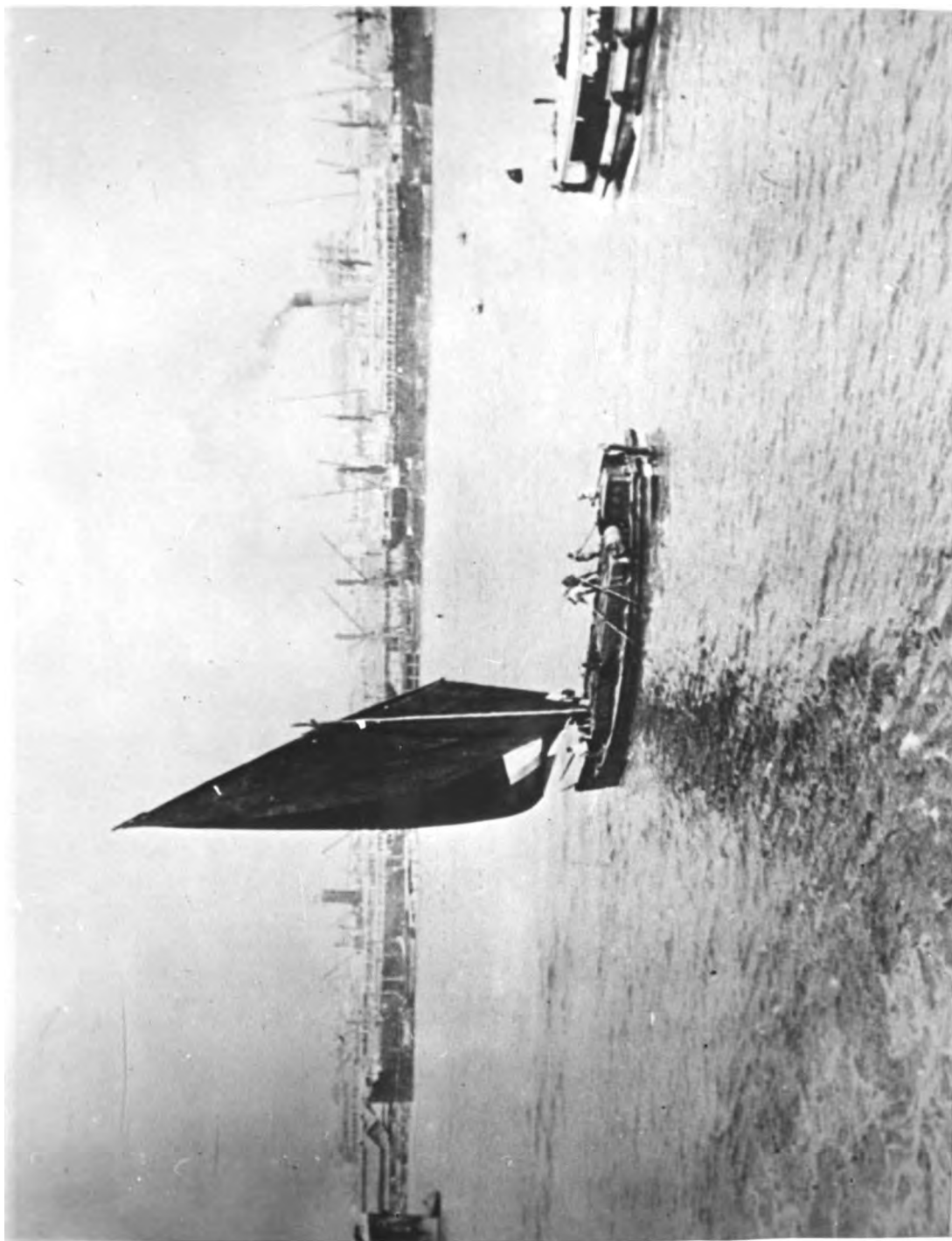
OSS R 736454



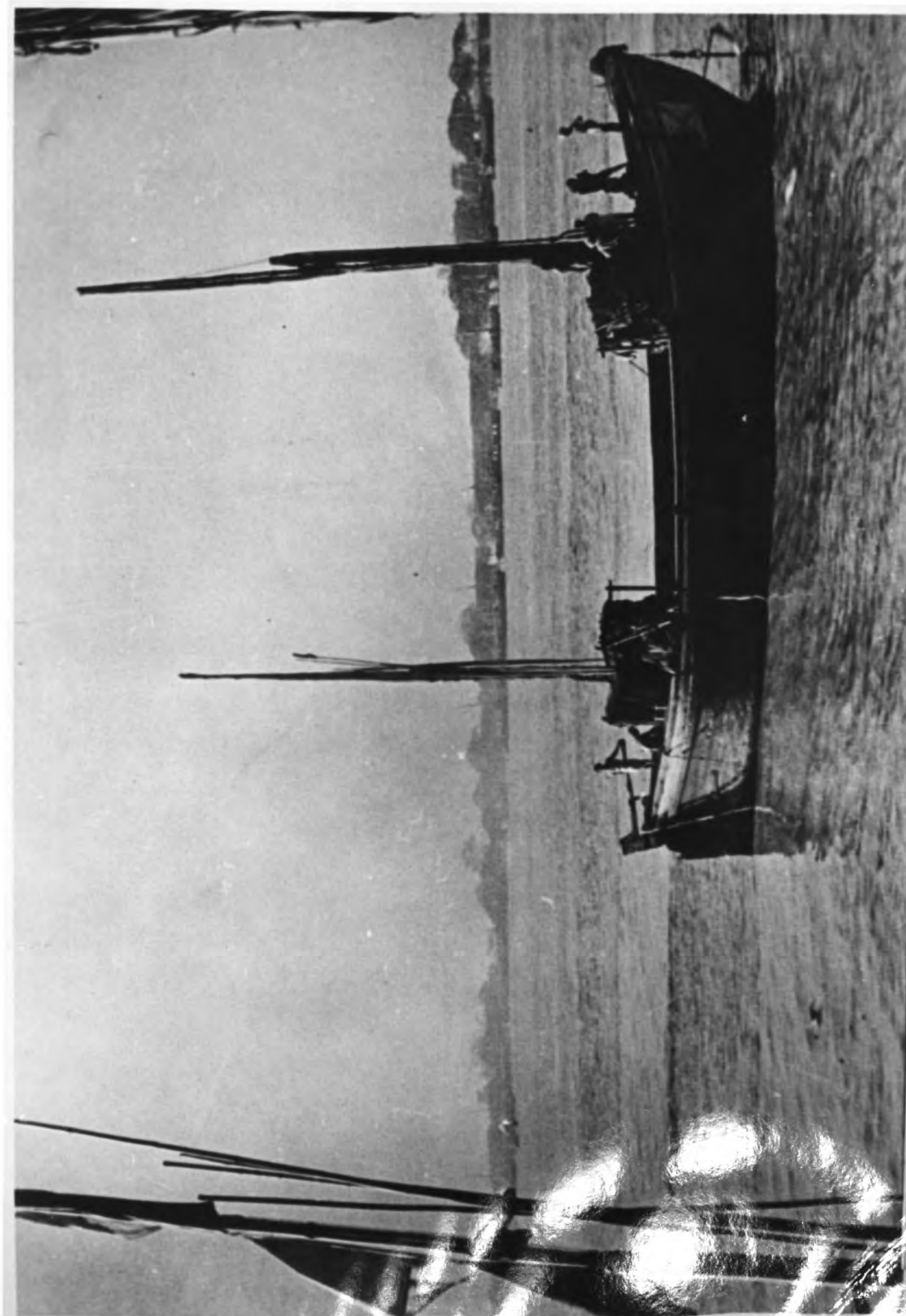
"Laung," found on the Irrawaddy River, Burma.

OSS R 736455

5947



7. Native craft at Rangoon, Burma. 1925. OSS R 67368



8. Native craft on the Rangoon River near Rangoon, Burma. 1938. OSS R 12818

100



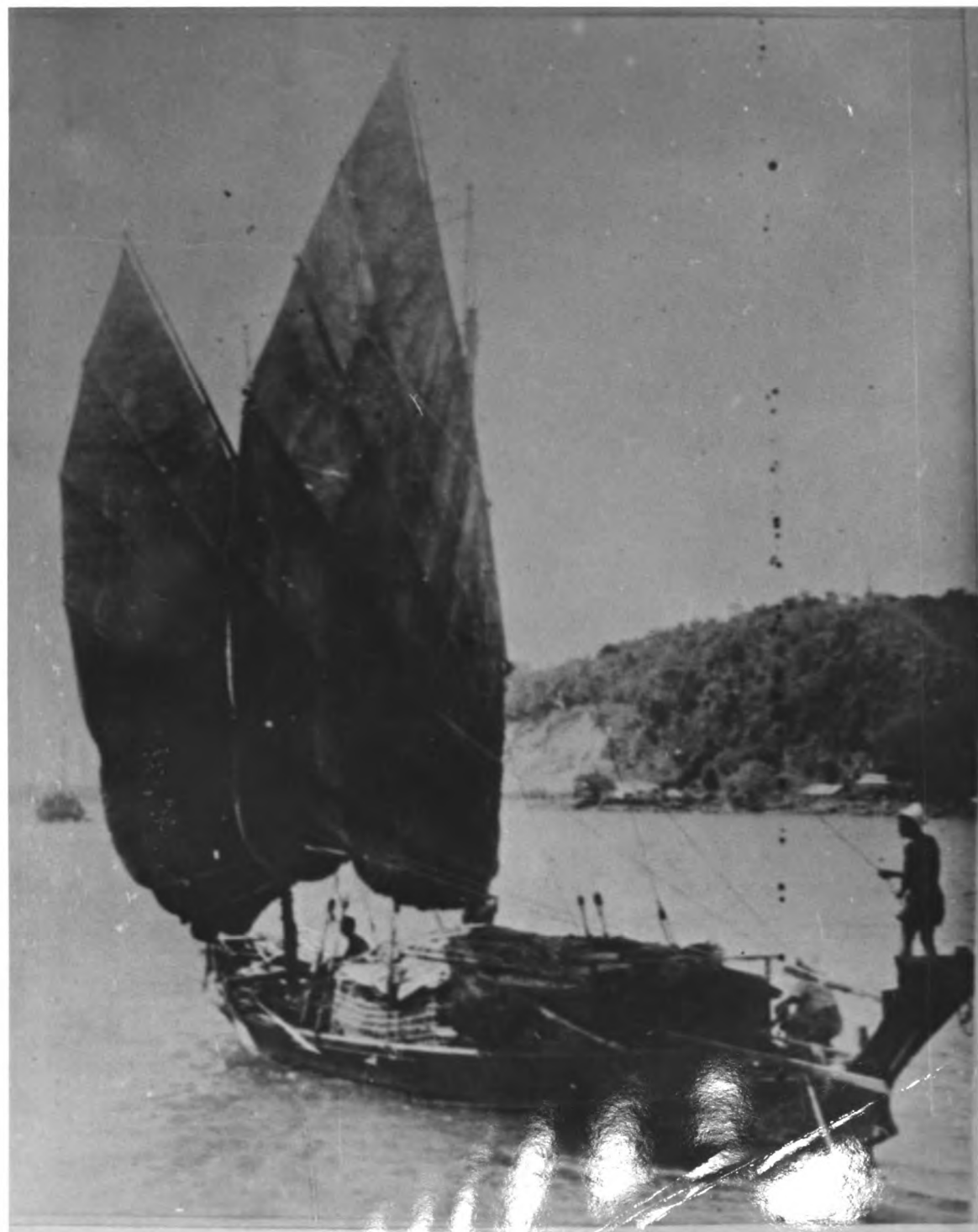
9. Native craft on the Rangoon River near Rangoon, Burma. OSS R 762753



10. "Lundwins," used mostly for fishing, Burma.

OSS R 736458

55947



11. Native craft in Burma.

OSC R 736.44



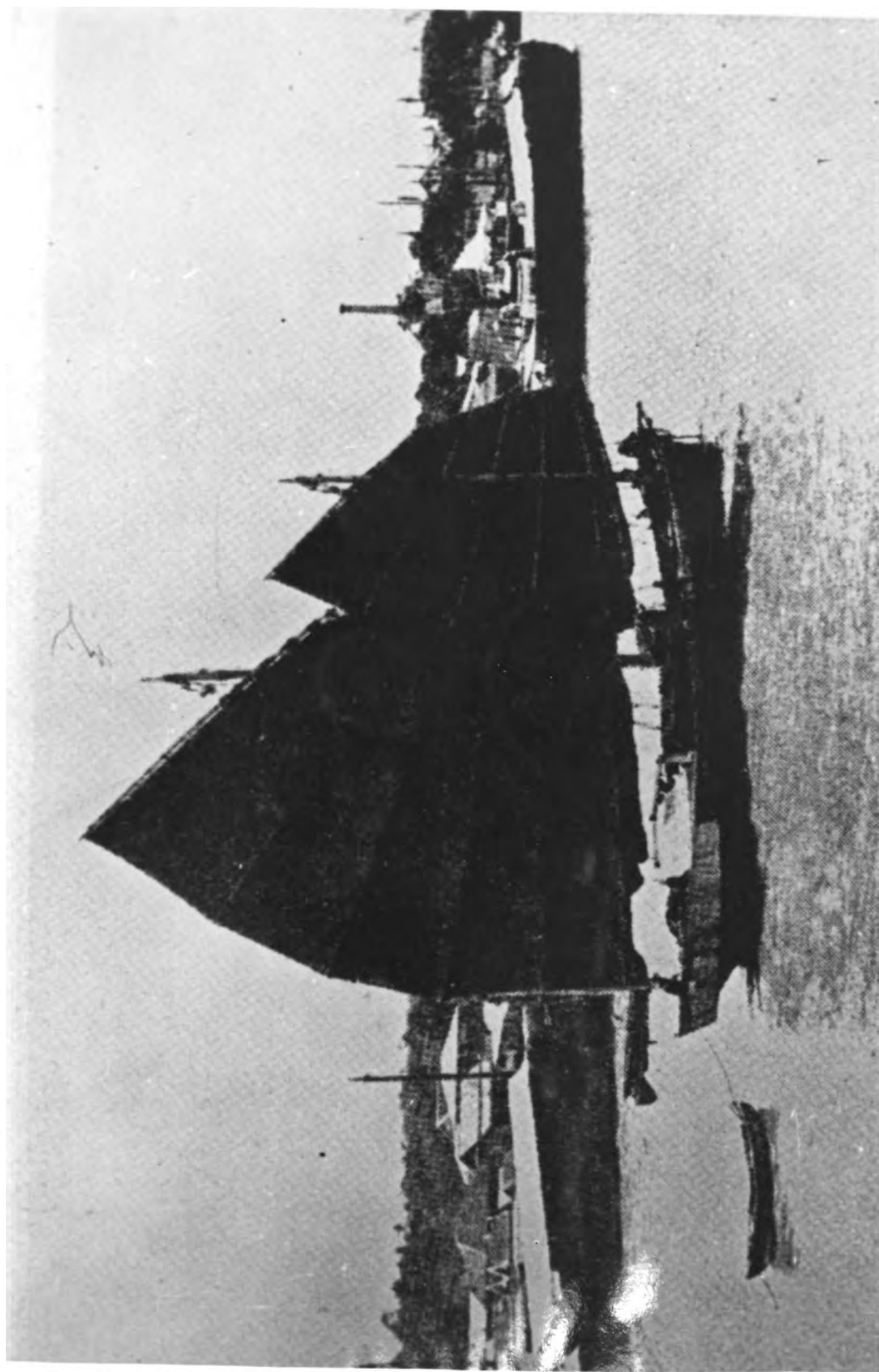
12. Native craft in Burma.

OSS R 736445

13.



13. Heavy wooden cargo boat used for carrying cargo to and from sea-going vessels in harbor, Burma. OSS R 736449



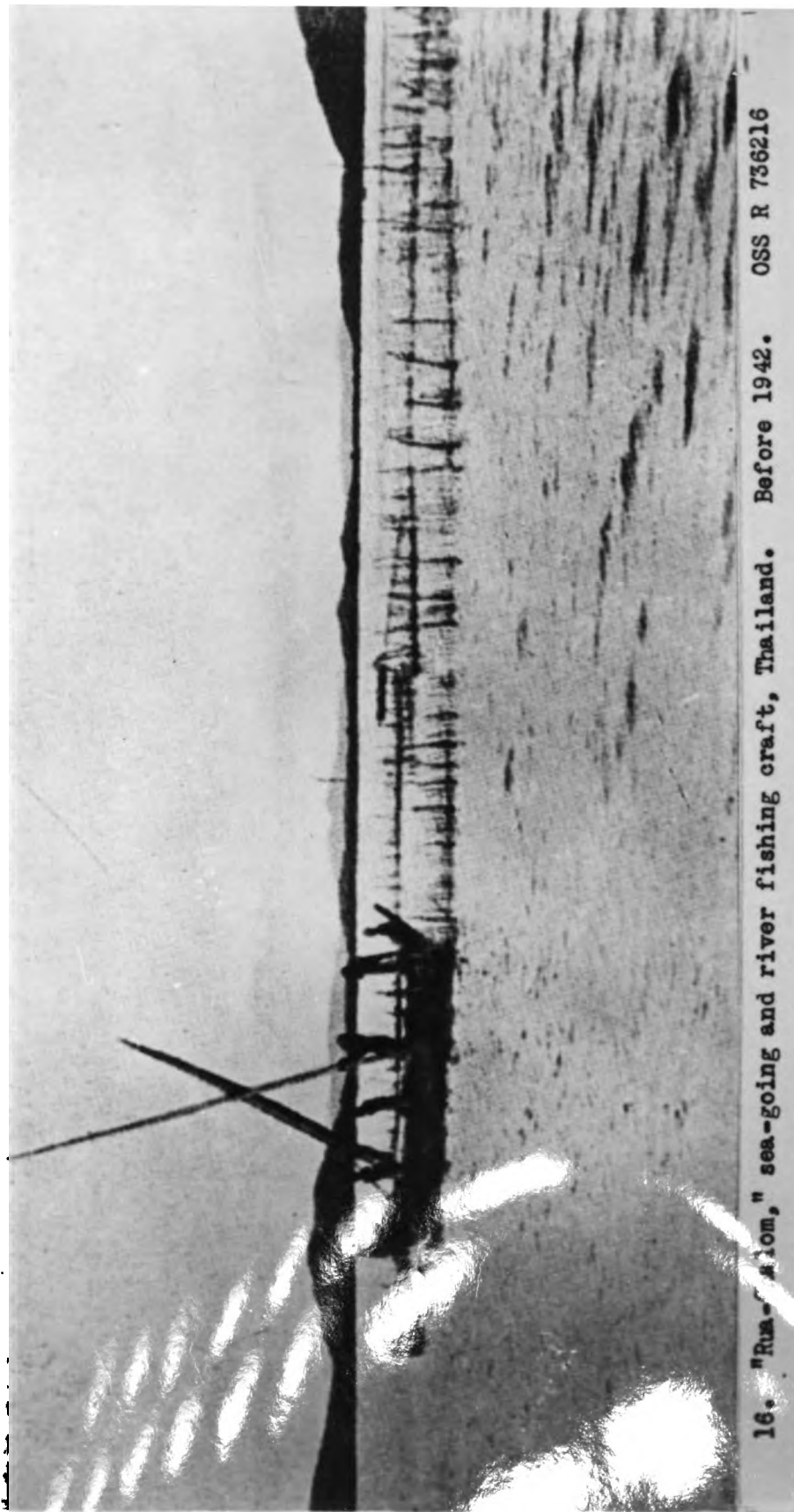
14. "Lorcha," sea-going and river cargo craft, Thailand. Before 1942.
OSS R 736215



15. "Rua-Kao," river transport
Before 1942.

Thailand.

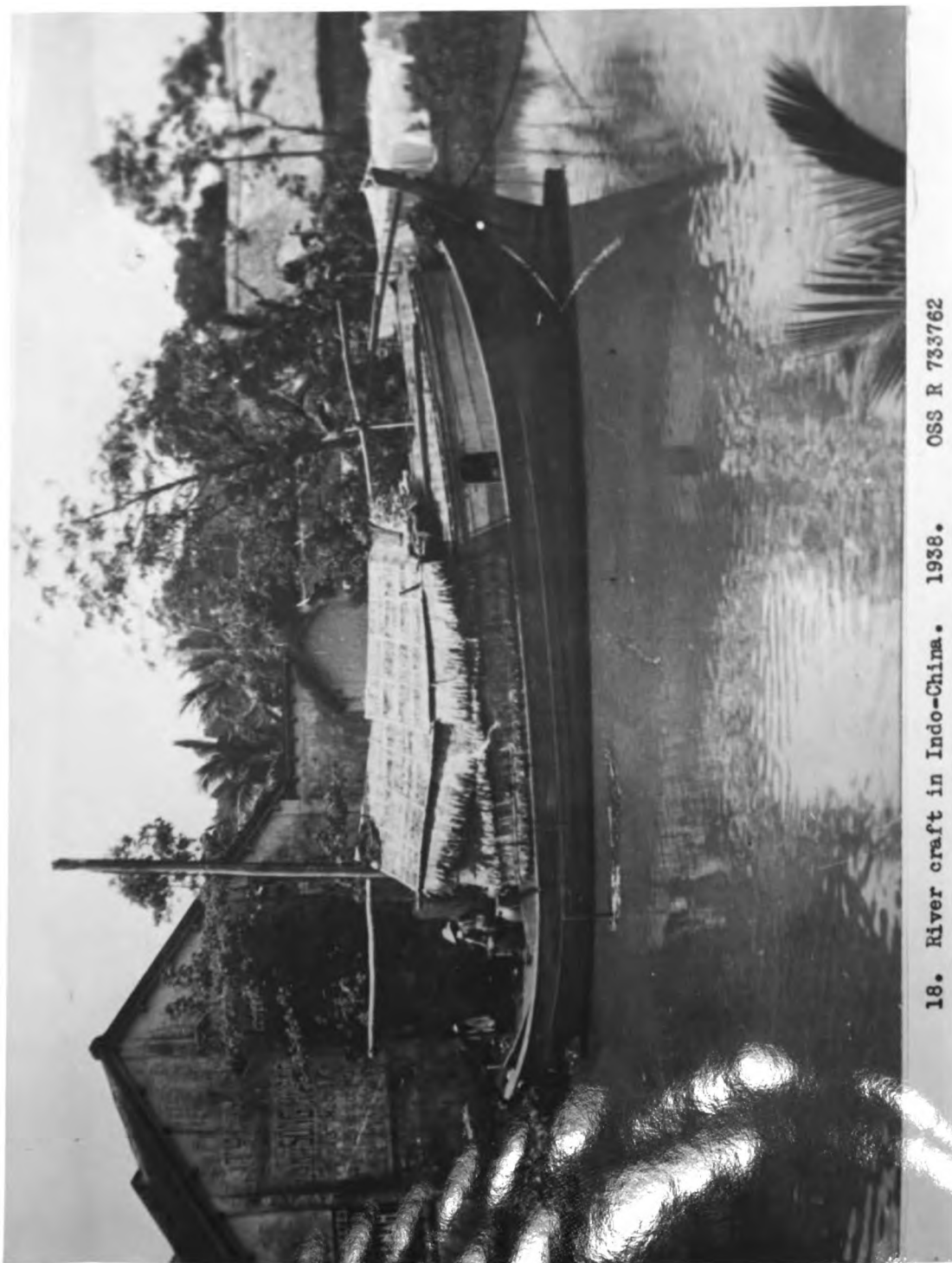
OSS R 7362



16. "Ra-ma-lom," sea-going and river fishing craft, Thailand. Before 1942. OSS R 736216



17. River craft in Indo-China. 1938. OSS R 733760

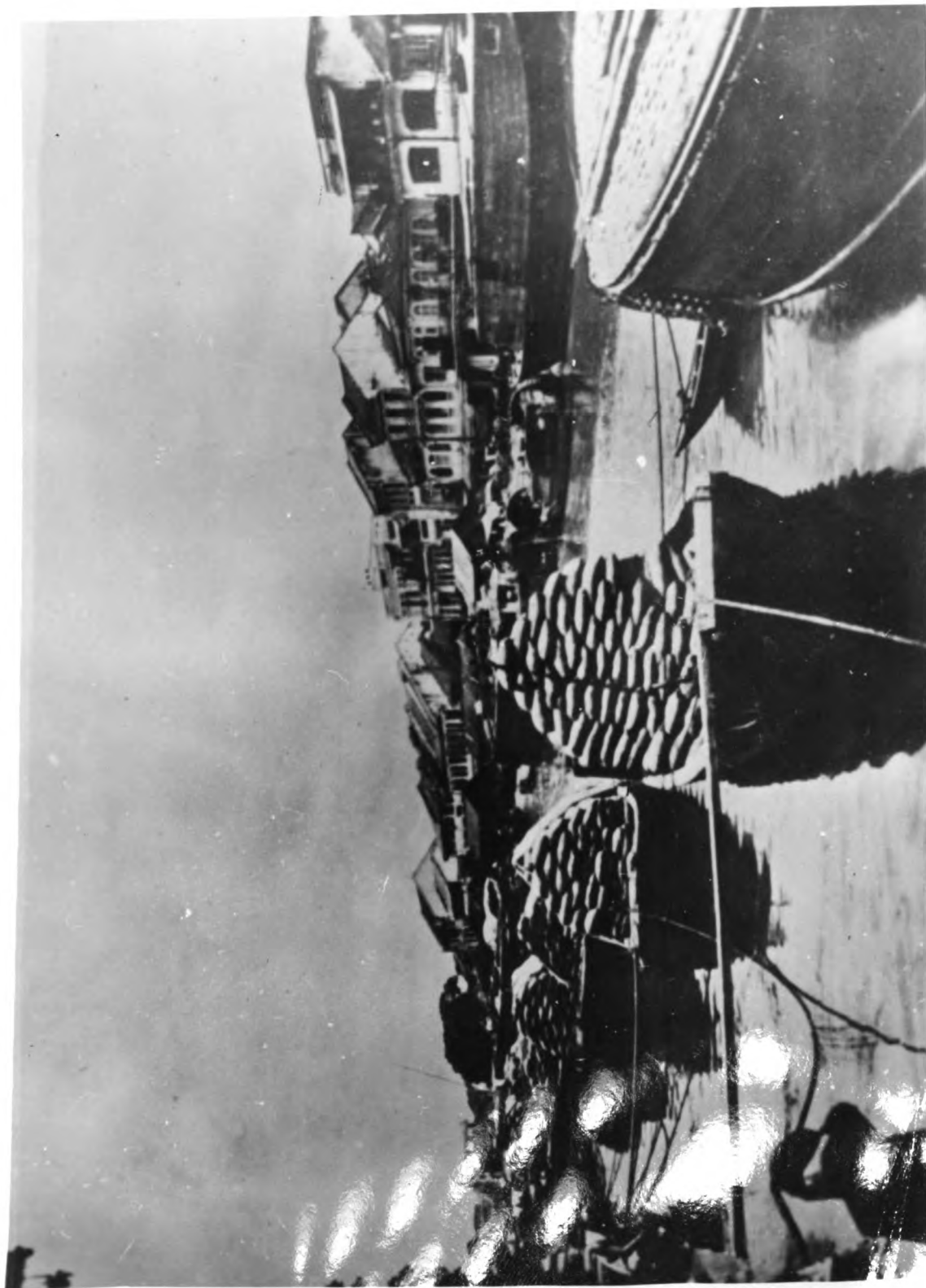


18. River craft in Indo-China. 1938. OSS R 733762

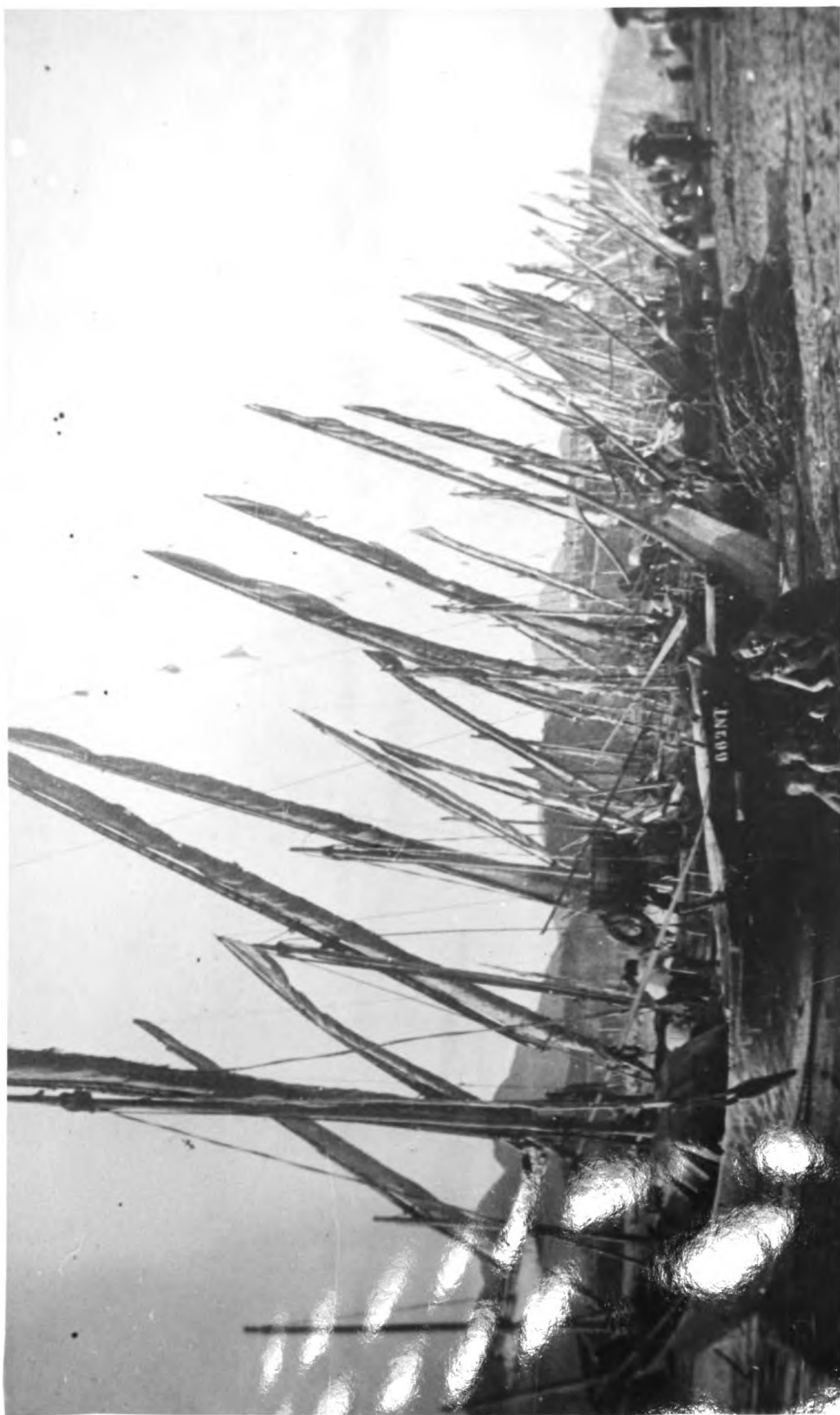


19. River barge in Indo-China. 1938. OSS R 733761

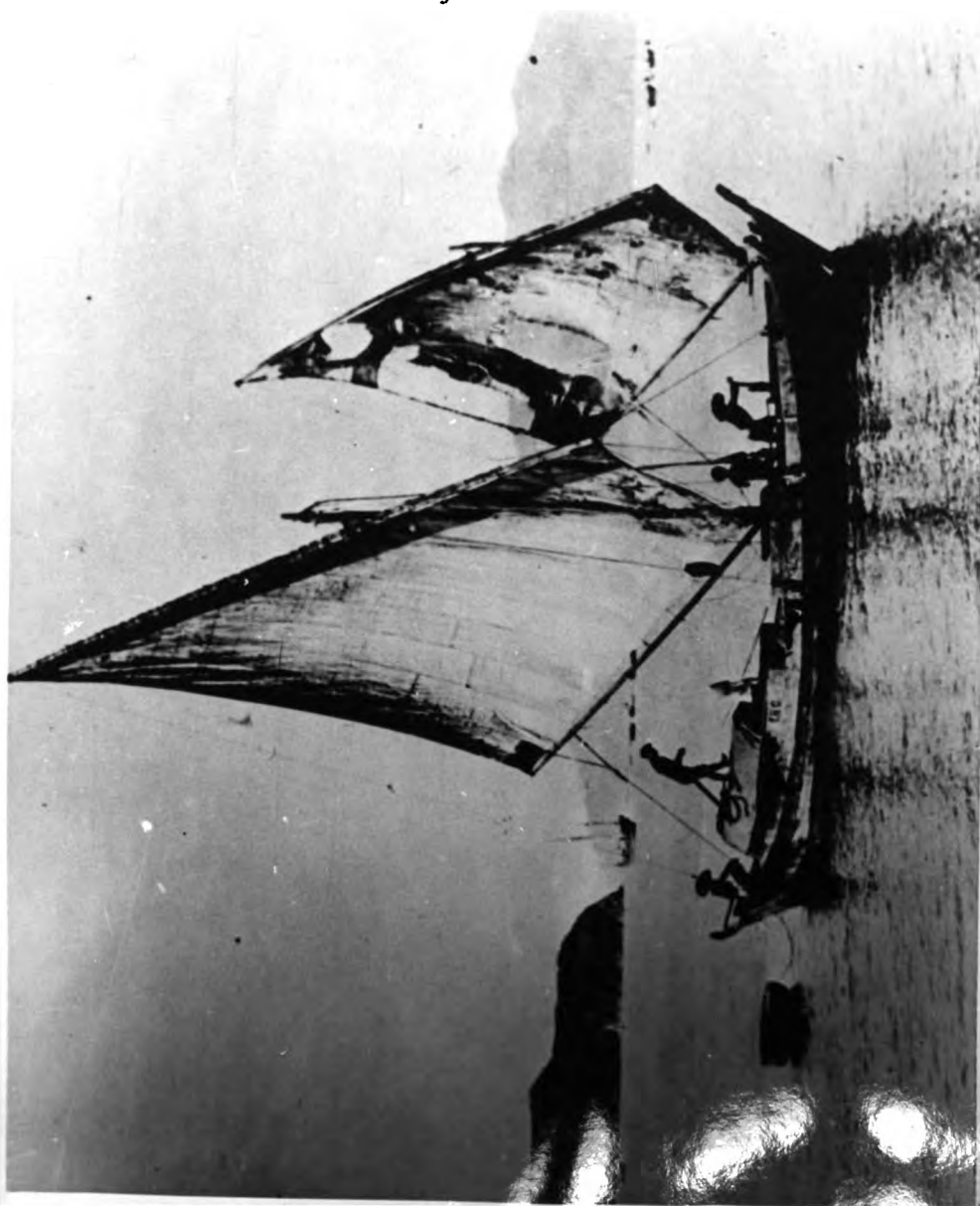




21. Rice being exported by the Saigon River, Cholón, Cochinchina, Indo-China. OSS R 110223



22. Fishermen's craft in Southern Annam, Indo-China. Before 1940. OSS R 734168



23. Typical local native craft, with basket work bottom, flat wooden sides, roof over stern portion. To avert capsizing, a kind of false rudder or keel is inserted in a slot in the bow. Binhdinh. Annam. Indo-China. OSS R 67893



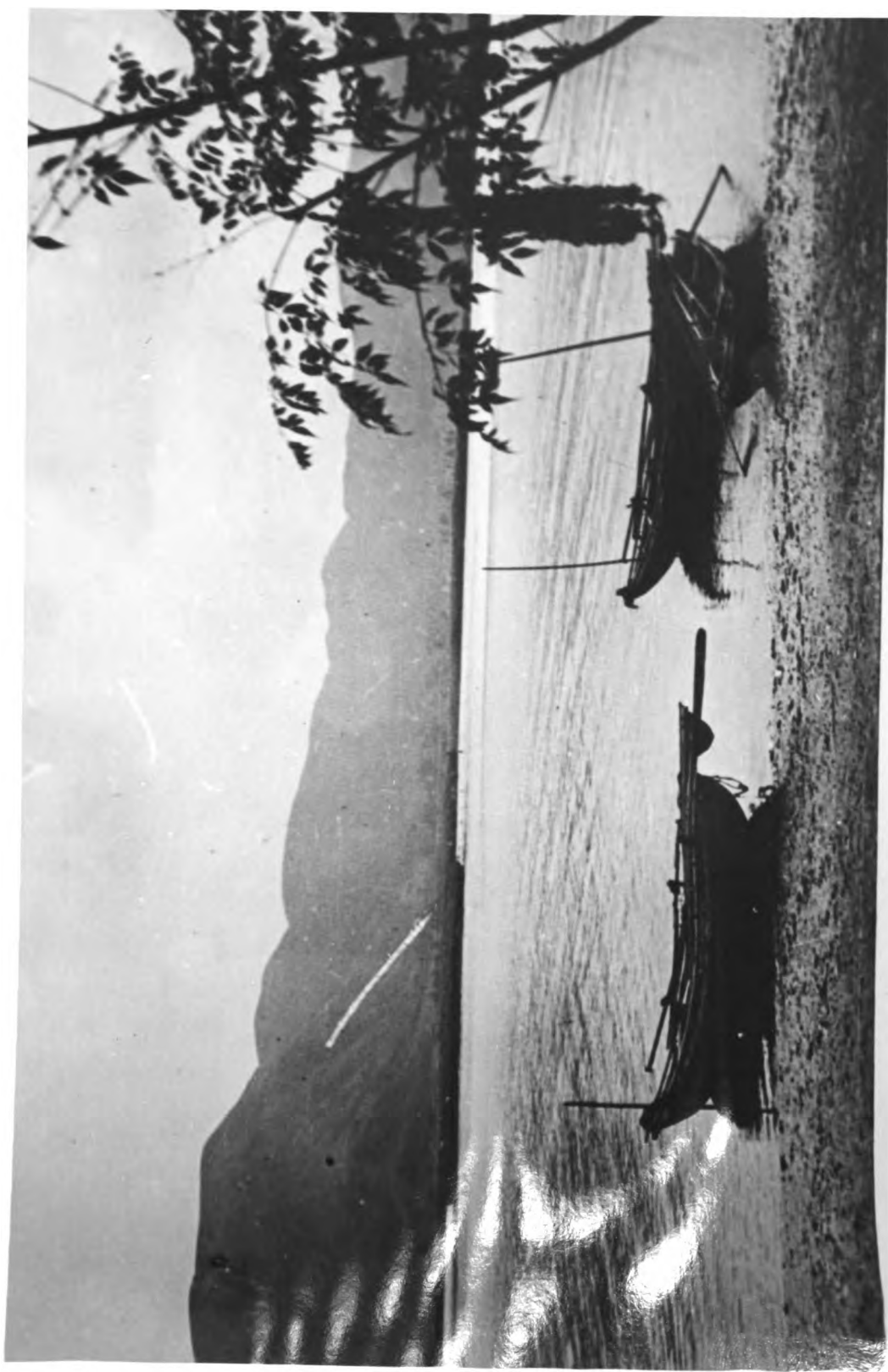
24. Tourane Bay, Annam, Indo-China. 1929. OSS R 717889





26. Native craft at Cua Tung, Annam, Indo-China. 1937. OSS R 717881





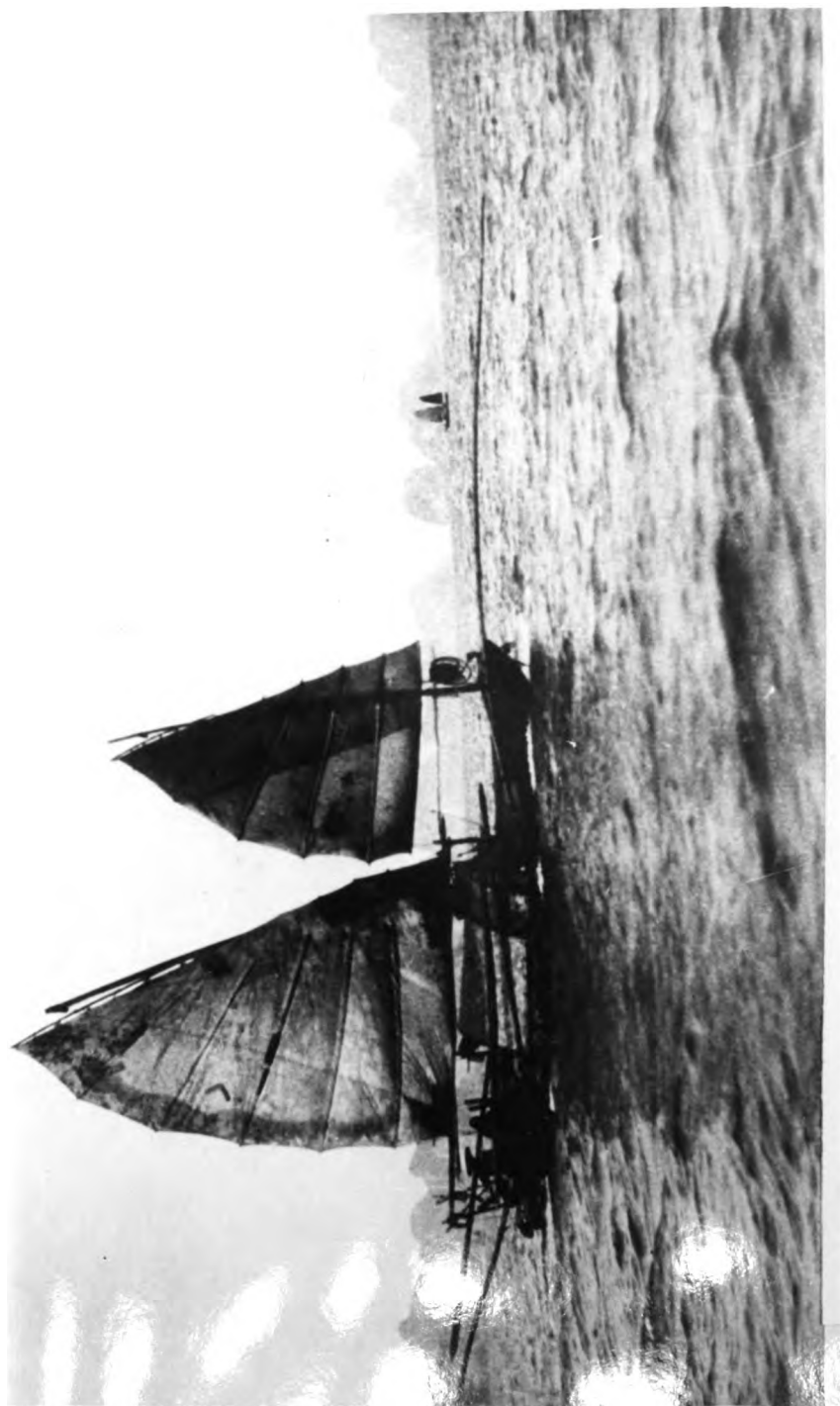
27. Native craft at Loch Truong. Annam. Indo-China. 1939. OSS K 717896



28. Native craft on canal at Thanh Hoa, Annam, Indo-China. 1932. OSS R 66736



29. Native fishing boats in Baie d'Along, Tonking, Indo-China. Before 1937.
OSS R 74319



30. "Gay-Bao" or "Gay-Yoo", fishing boat, with long poles at either end to hold nets. Baie d'Along, Tonking, Indo-China. 1930. OSS R 68734



1. Native craft in Baie d'Along, Tonking, Indo-China. 1938-39.
OSS R 733770



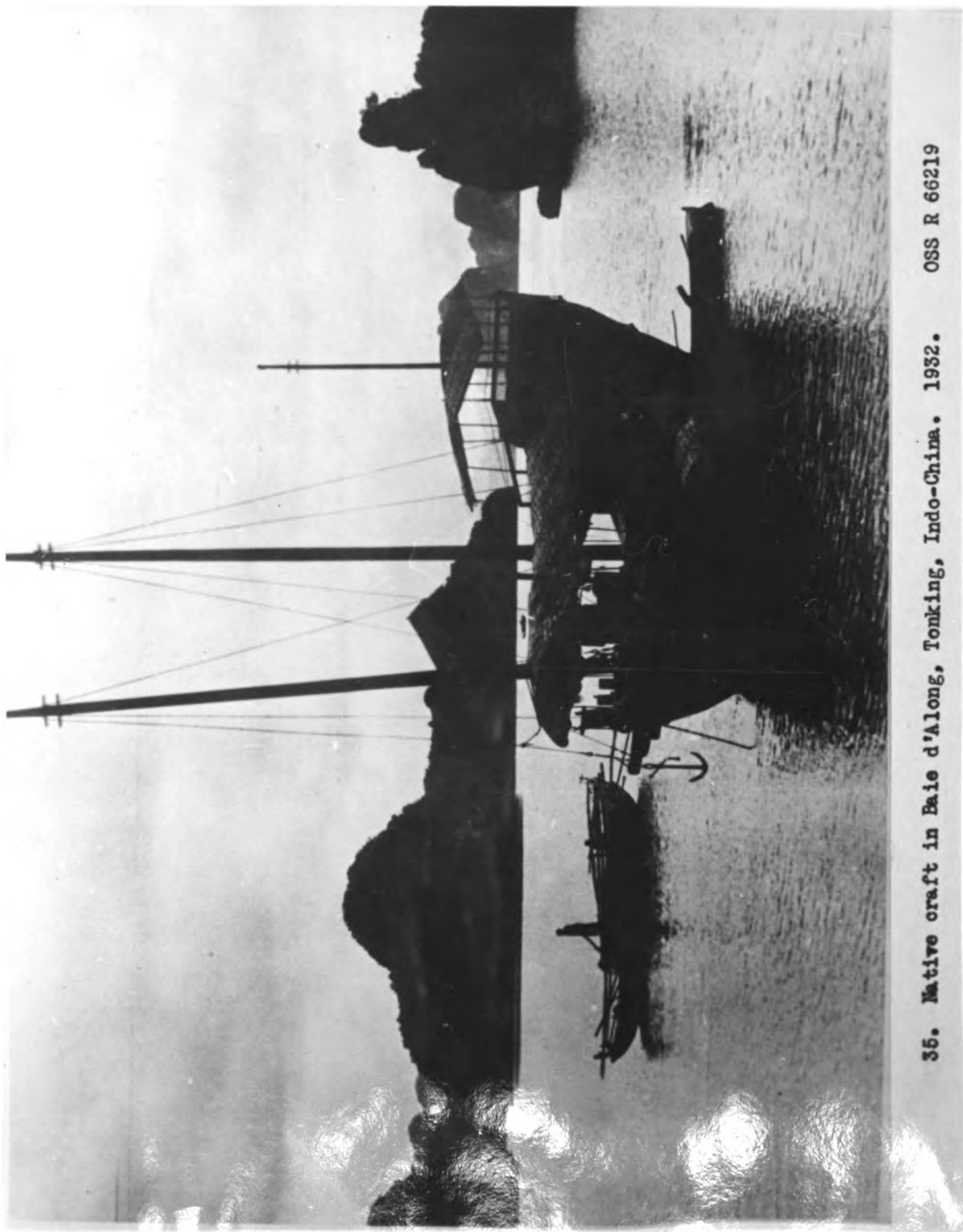
32. Native craft in Baie d'Along, Tonking, Indo-China. 1938-39. OSS R 733771



33. Native craft in Baie d'Along, Tonking, Indo-China. 1932. OSS R 67417



34. Junk in Baie d'Along, Tonking, Indo-China. OSS R 734593



35. Native craft in Baie d'Along, Tonking, Indo-China. 1932. OSS R 66219



36. Native craft near Haiphong, Tonking, Indo-China. 1938. OSS R 729649

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